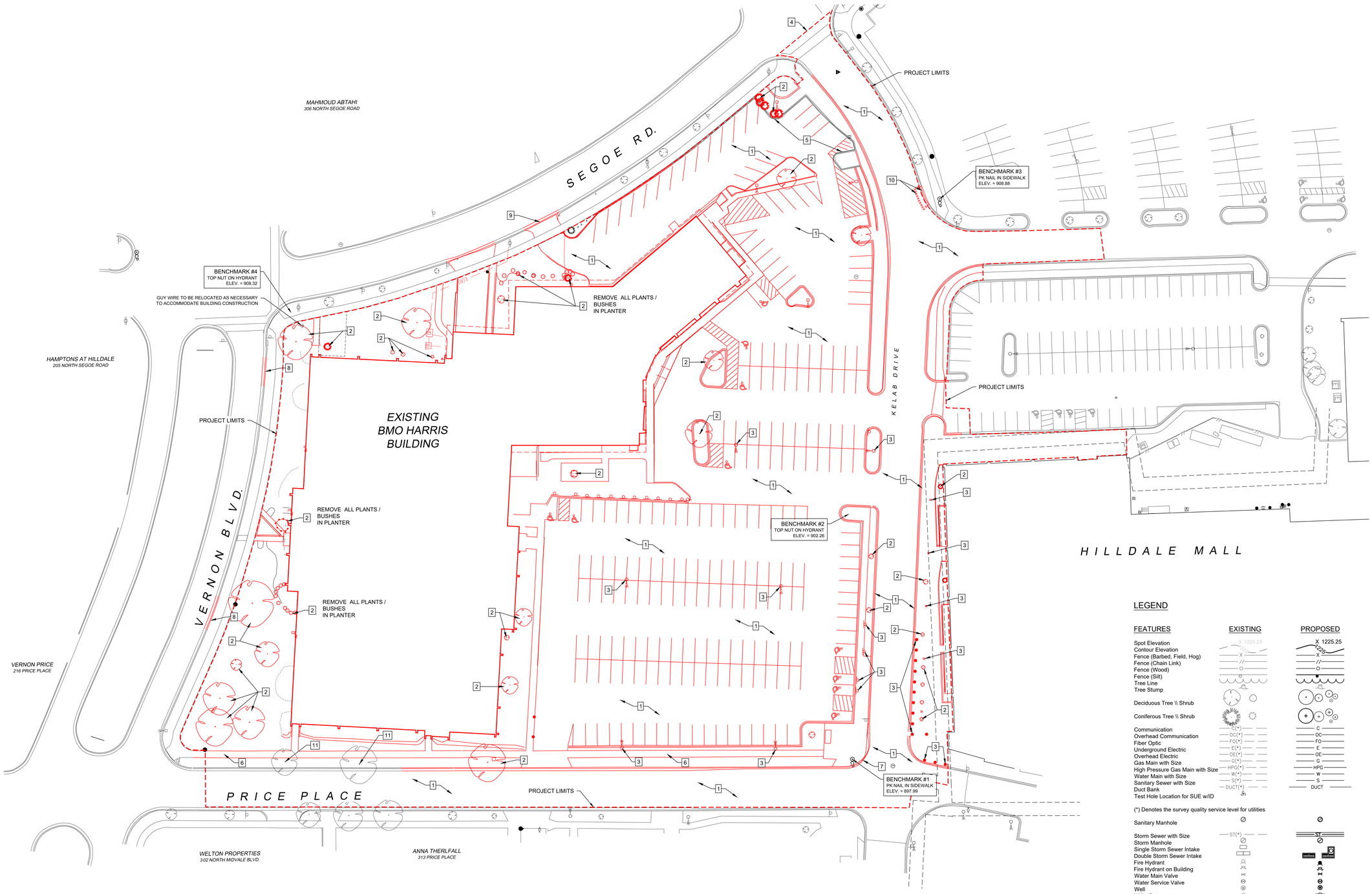

SITE PLAN KEYNOTES

1. EXISTING CONCRETE AND ASPHALT PAVEMENT TO BE REMOVED
2. EXISTING VEGETATION TO INCLUDE TREES AND SHRUBS TO BE REMOVED
3. EXISTING MISC. SITE AMENITIES TO BE REMOVED (BOLLARDS, LIGHT POLES, SIGNS, ETC.)
4. SAW CUT EXISTING PAVEMENT FOR A CLEAN MATCH LINE
5. EXISTING CONCRETE RETAINING WALL TO REMAIN
6. REMOVE EXISTING SIDEWALK
7. REMOVE EXISTING CURB RETURNS
8. EXISTING CURB TO BE SAWCUT FOR NEW DRIVEWAY ENTRANCE
9. EXISTING DRIVEWAY APRON TO BE REMOVED, SAW CUT EXISTING CURB AND AND INFILL WITH NEW CURB & GUTTER
10. EXISTING CURB AND PAVEMENT TO BE REMOVED TO INSTALL NEW CURB INLET
11. INSTALL TREE PROTECTION AS SHOWN IN DETAIL ON SHEET C504

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI / ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

0 30
FEET

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

LEGEND

FEATURES	EXISTING	PROPOSED
Spot Elevation	X 1225.25	X 1225.25
Contour Elevation		
Fence (Barbed, Field, Hog)	X	X
Fence (Chain Link)	//	//
Fence (Wood)	O	O
Fence (Silt)		
Tree Line		
Tree Stump		
Deciduous Tree \\ Shrub		
Coniferous Tree \\ Shrub		
Communication	C(*)	C
Overhead Communication	OC(*)	OC
Fiber Optic	FO(*)	FO
Underground Electric	E(*)	E
Overhead Electric	OE(*)	OE
Gas Main with Size	G(*)	G
High Pressure Gas Main with Size	HPG(*)	HPG
Water Main with Size	W(*)	W
Sanitary Sewer with Size	S(*)	S
Duct Bank	DUCT(*)	DUCT
Test Hole Location for SUE w/ID		
(*) Denotes the survey quality service level for utilities		
Sanitary Manhole		
Storm Sewer with Size	ST(*)	
Storm Manhole		
Single Storm Sewer Intake		
Double Storm Sewer Intake		
Fire Hydrant		
Fire Hydrant on Building		
Water Main Valve		
Water Service Valve		
Well		
Utility Pole		
Guy Anchor		
Utility Pole with Light		
Utility Pole with Transformer		
Street Light		
Yard Light		
Electric Box	EB	EB
Electric Transformer		
Traffic Sign		
Communication Pedestal		
Communication Manhole	C	C
Communication Handhole	CH	CH
Fiber Optic Manhole	FO	FO
Fiber Optic Handhole	FOH	FOH
Gas Valve		
Gas Manhole	G	G
Gas Apparatus		
Fence Post or Guard Post		
Underground Storage Tank	UST	
Above Ground Storage Tank	AST	
Sign		
Satellite Dish		
Mailbox		
Sprinkler Head		
Irrigation Control Valve	HCV	HCV
Soil Boring	B-2	
Elevation	EL: 1225.25	EL: 1225.25

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P 617.232.8900

SNYDER & ASSOCIATES
5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444

PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

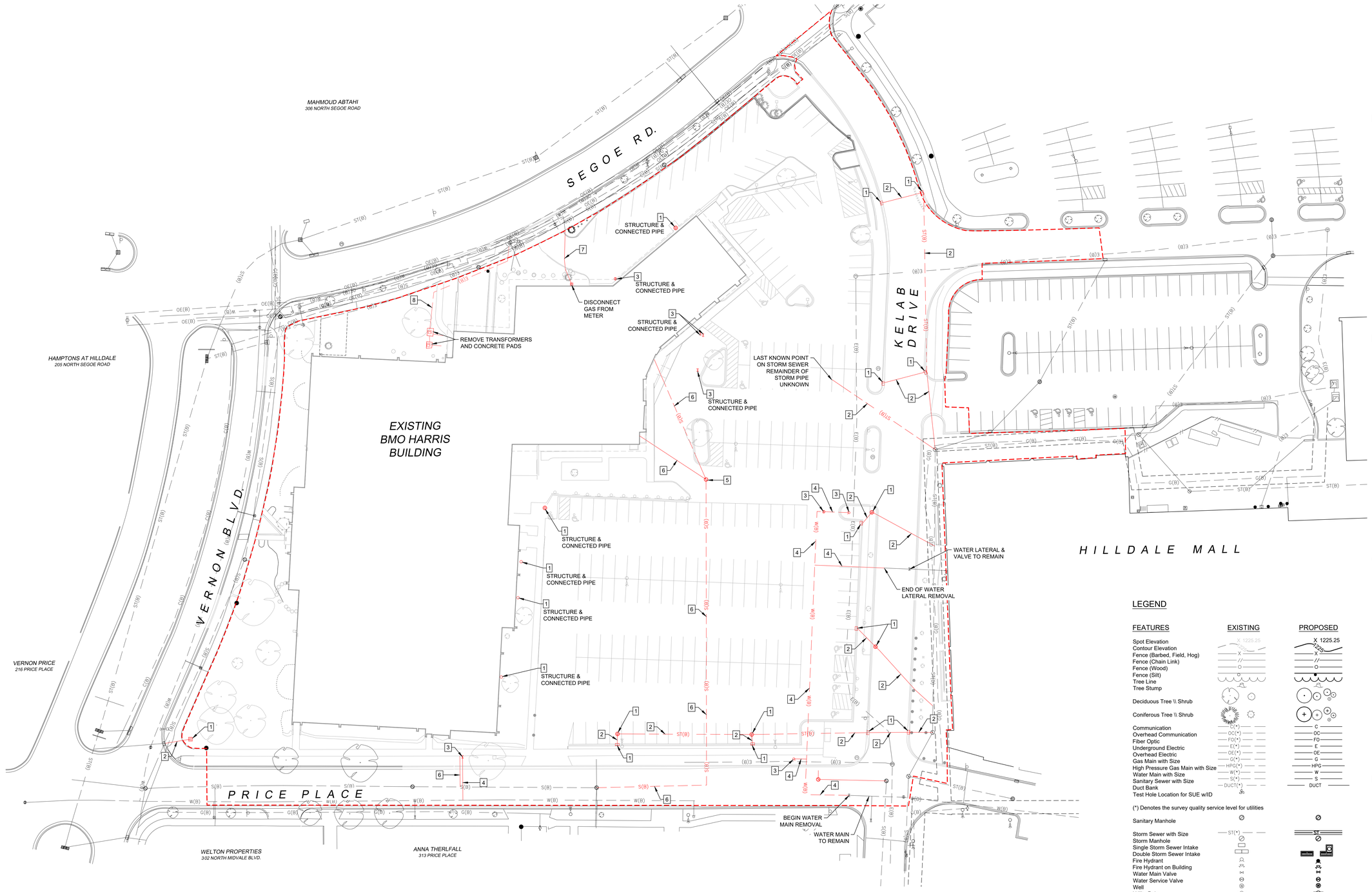
SHEET INFORMATION

PROJECT MANAGER SJA

PROJECT NUMBER 120.0311.30

EXISTING SITE & DEMOLITION PLAN

C 100



SITE PLAN KEYNOTES

1. EXISTING STORM SEWER STRUCTURE TO BE REMOVED
2. EXISTING STORM SEWER PIPE TO BE REMOVED
3. EXISTING WATER STRUCTURE TO BE REMOVED
4. EXISTING WATER PIPE / LATERAL TO BE REMOVED
5. EXISTING SANITARY STRUCTURE TO BE REMOVED
6. EXISTING SANITARY PIPE / LATERAL TO BE REMOVED
7. EXISTING GAS PIPE TO BE REMOVED AND CAPPED PER DIRECTION OF THE UTILITY PROVIDER
8. EXISTING BURIED ELECTRIC TO BE REMOVED PER DIRECTION OF THE UTILITY PROVIDER

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CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BOTH PUBLIC AND PRIVATE PRIOR TO THE START OF WORK BEING DONE ONSITE.

0 30 FEET

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LEGEND

FEATURES	EXISTING	PROPOSED
Spot Elevation	X 1225.25	X 1225.25
Contour Elevation		1225
Fence (Barbed, Field, Hog)	X	X
Fence (Chain Link)	//	//
Fence (Wood)	O	O
Fence (Silt)		
Tree Line		
Tree Stump		
Deciduous Tree \\ Shrub		
Coniferous Tree \\ Shrub		
Communication	C(*)	C
Overhead Communication	OC(*)	OC
Fiber Optic	FO(*)	FO
Underground Electric	E(*)	E
Overhead Electric	OE(*)	OE
Gas Main with Size	G(*)	G
High Pressure Gas Main with Size	HPG(*)	HPG
Water Main with Size	W(*)	W
Sanitary Sewer with Size	S(*)	S
Duct Bank	DUCT(*)	DUCT
Test Hole Location for SUE w/ID		

(*) Denotes the survey quality service level for utilities

Sanitary Manhole		
Storm Sewer with Size	ST(*)	ST
Storm Manhole		
Single Storm Sewer Intake		
Double Storm Sewer Intake		
Fire Hydrant		
Fire Hydrant on Building		
Water Main Valve		
Water Service Valve		
Well		
Utility Pole		
Guy Anchor		
Utility Pole with Light		
Utility Pole with Transformer		
Street Light		
Yard Light		
Electric Box		
Electric Transformer		
Traffic Sign		
Communication Pedestal		
Communication Manhole		
Communication Handhole		
Fiber Optic Manhole		
Fiber Optic Handhole		
Gas Valve		
Gas Manhole		
Gas Apparatus		
Fence Post or Guard Post		
Underground Storage Tank	UST	
Above Ground Storage Tank	AST	
Sign		
Satellite Dish		
Mailbox		
Sprinkler Head		
Irrigation Control Valve	HCV	HCV
Soil Boring	B-2	
Elevation	EL: 1225.25	EL: 1225.25

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

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Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

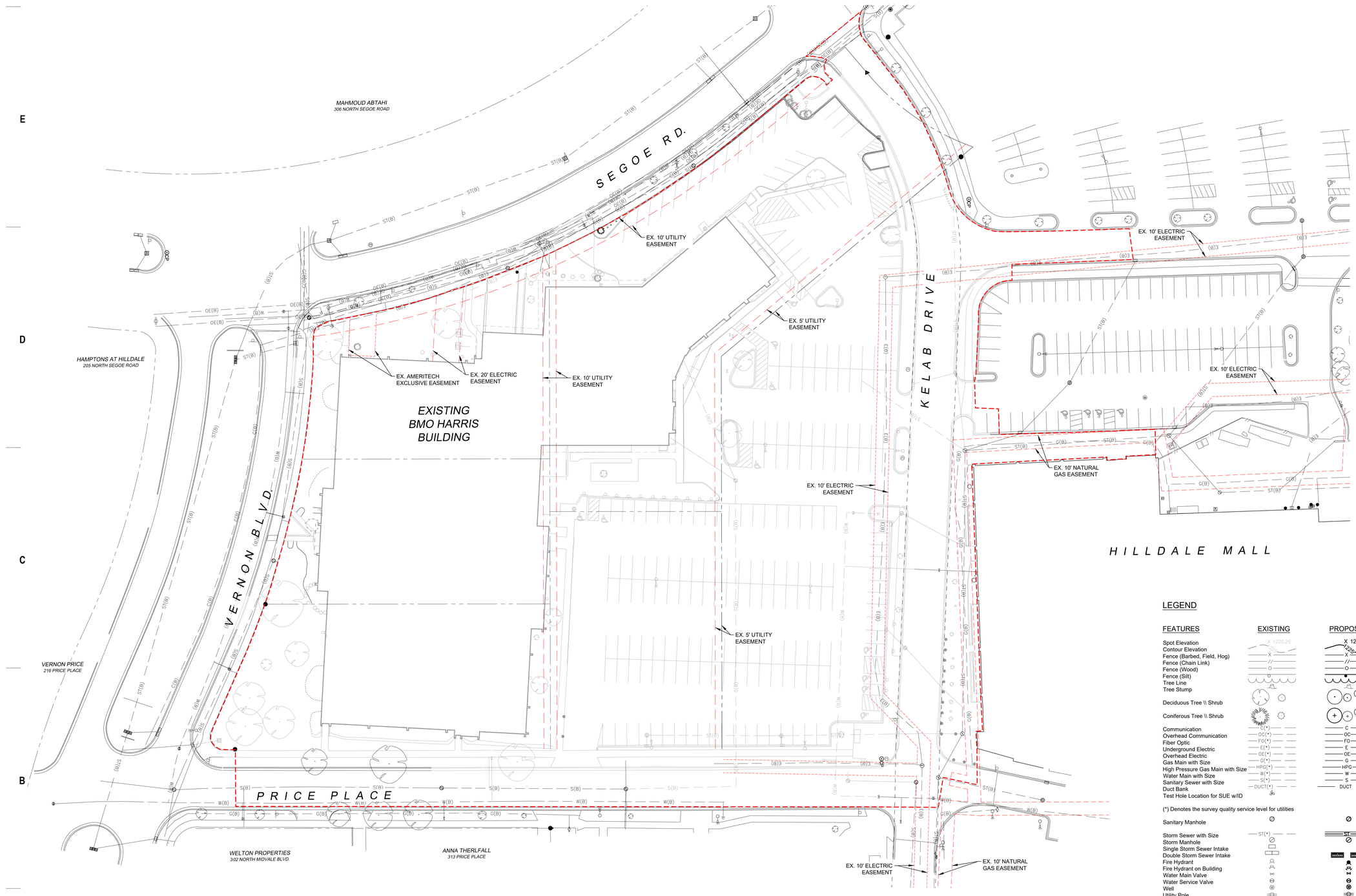
KEY PLAN

SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

EXISTING UTILITY DEMOLITION PLAN

C 101



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LEGEND

FEATURES	EXISTING	PROPOSED
Spot Elevation	X 1225.25	X 1225.25
Contour Elevation		
Fence (Barbed, Field, Hog)	X	X
Fence (Chain Link)	//	//
Fence (Wood)	O	O
Fence (Silt)		
Tree Line		
Tree Stump		
Deciduous Tree \\ Shrub		
Coniferous Tree \\ Shrub		
Communication	C(*)	C
Overhead Communication	OC(*)	OC
Fiber Optic	FO(*)	FO
Underground Electric	E(*)	E
Overhead Electric	OE(*)	OE
Gas Main with Size	G(*)	G
High Pressure Gas Main with Size	HPG(*)	HPG
Water Main with Size	W(*)	W
Sanitary Sewer with Size	S(*)	S
Duct Bank	DUCT(*)	DUCT
Test Hole Location for SUE w/ID		
(*) Denotes the survey quality service level for utilities		
Sanitary Manhole		
Storm Sewer with Size	ST(*)	ST
Storm Manhole		
Single Storm Sewer Intake		
Double Storm Sewer Intake		
Fire Hydrant		
Fire Hydrant on Building		
Water Main Valve		
Water Service Valve		
Well		
Utility Pole		
Guy Anchor		
Utility Pole with Light		
Utility Pole with Transformer		
Street Light		
Yard Light		
Electric Box		
Electric Transformer		
Traffic Sign		
Communication Pedestal		
Communication Manhole		
Communication Handhole		
Fiber Optic Manhole		
Fiber Optic Handhole		
Gas Valve		
Gas Manhole		
Gas Apparatus		
Fence Post or Guard Post		
Underground Storage Tank	UST	
Above Ground Storage Tank	AST	
Sign		
Satellite Dish		
Mailbox		
Sprinkler Head		
Irrigation Control Valve	HICV	HICV
Soil Boring	B-2	
Elevation	EL: 1225.25	EL: 1225.25

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

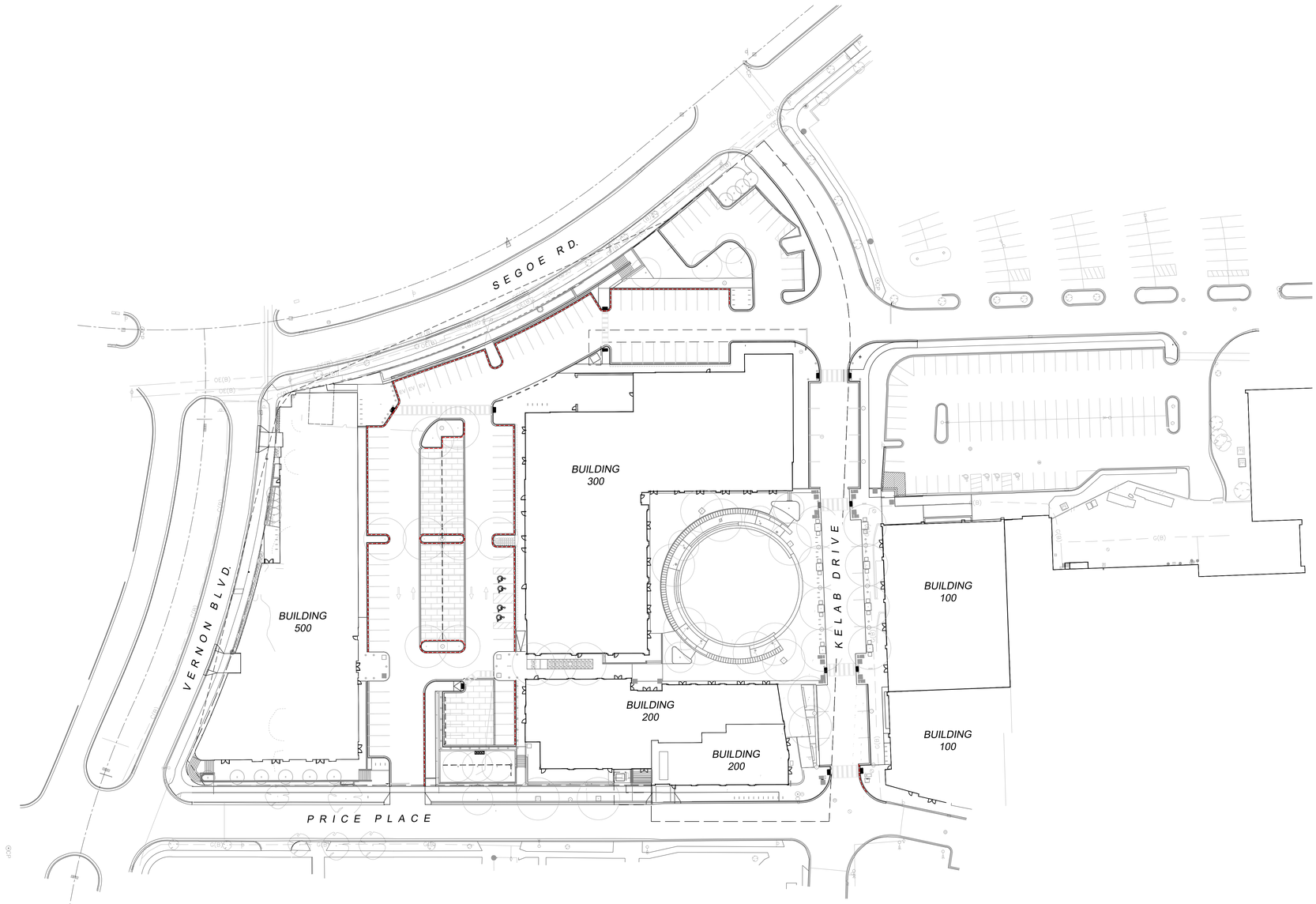
SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

EXISTING EASEMENTS

C 102

V:\Projects\2020\120.0311.30\CAD\120.0311.30-P100.dwg ANDREW BERGMANN, EXISTING EASEMENTS, 2023/03/10, 4:24 PM, ARCH FULL BLEED E1 (30.00) X 42.00 INCHES)



SITE INFORMATION

TOTAL SITE AREA: 221,647 SF / 5.09 ACRES

EXISTING IMPERVIOUS AREA: 184,807 SF

NEW IMPERVIOUS AREA: 27,403 SF (12.36% LOT COVERAGE)

REDEVELOPED IMPERVIOUS AREA: 173,193 SF

REMOVED IMPERVIOUS AREA: 19,614 SF

NET IMPERVIOUS AREA: 192,596 SF

PARKING STALL COUNT

TOTAL EXISTING SITE PARKING:	296 STALLS
TOTAL PROPOSED SITE PARKING:	234 STALLS
TOTAL HANDICAP PARKING:	8 STALLS (3 VAN)
TOTAL ELECTRIC VEHICLE PARKING:	3 STALLS

PROPOSED REDUCTION OF 62 PARKING STALLS

BIKE PARKING COUNT

PARKING CALC'S FOR BUILDING 100, BUILDING 200, BUILDING 300, AND BUILDING 500

BUILDING 500 - RESIDENTIAL
125 STALLS TOTAL (UNIT PLUS GUESTS)
103 STALLS LONG TERM 90% (IN BUILDING)
22 EXTERIOR BIKE STALLS BY BUILDING 500

BUILDINGS 100, 200 & 300 - RETAIL / RESTAURANT
RETAIL = (99,785 SF) / 2,000 SF PER BIKE STALL = 50 STALLS
RESTAURANT = (13,075 SF) / (15 SF PER PERSON)*0.5 = 44 STALLS
94 BIKE

FIRE LANE:

SEVERAL ROADS WILL ACT AS THE FIRE LANE ON THIS PROJECT, SEE SHEET C 204 FOR MORE INFORMATION.

NOTE:

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES ON AND ADJACENT TO THE SITE PRIOR TO THE START OF THE PROJECT.

RADII ARE FROM FACE OF CURB

DIMENSIONS ARE FROM FACE OF CURB

0 40
FEET

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

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ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

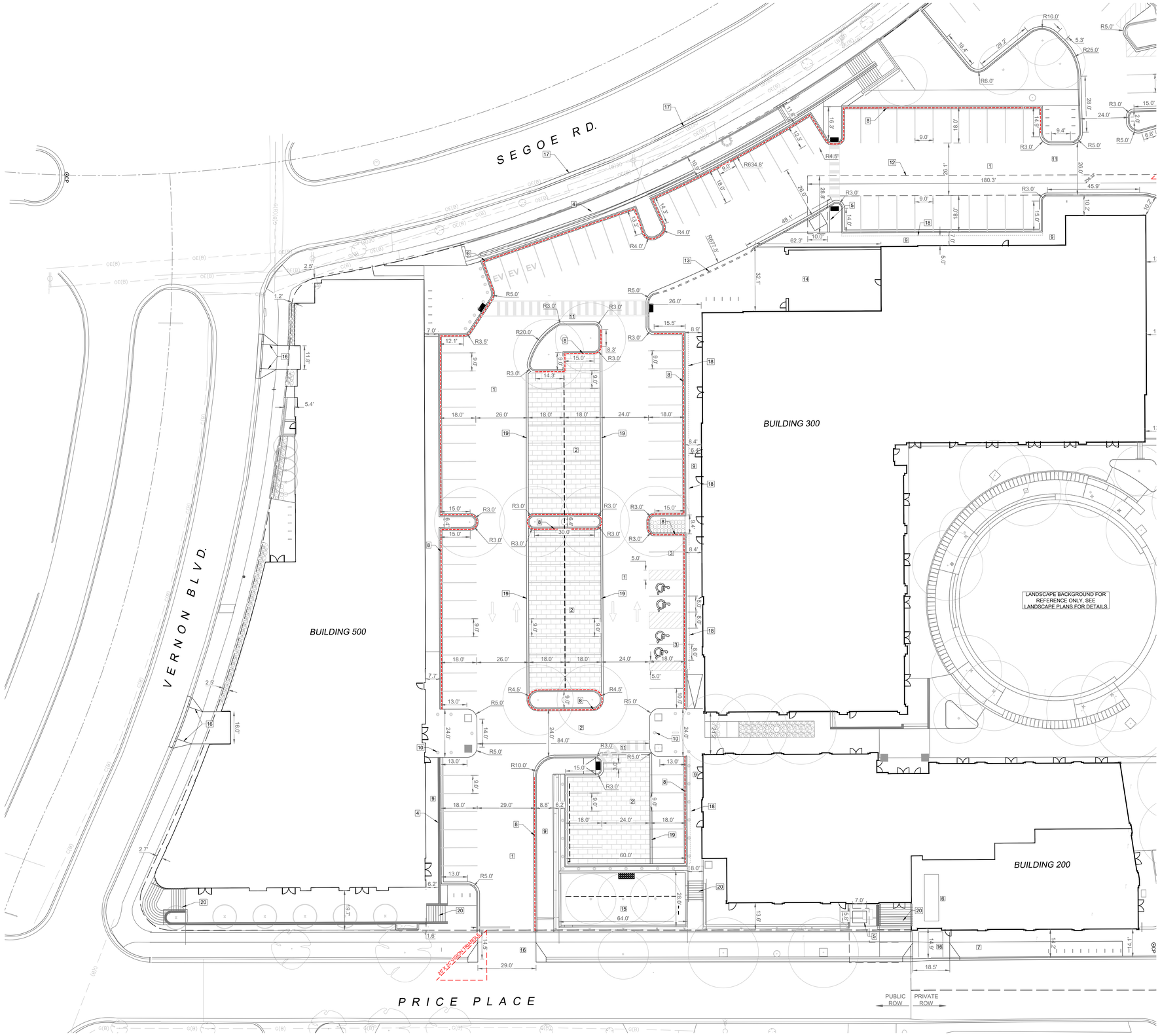
SHEET INFORMATION

PROJECT MANAGER SJA

PROJECT NUMBER 120.0311.30

OVERALL SITE PLAN

C 200



SITE PLAN KEYNOTES

1. PROPOSED ASPHALT PAVEMENT
2. PROPOSED PERMEABLE PAVERS
3. A.D.A. ACCESSIBLE PARKING SPACE WITH LOADING ZONE. PROVIDE APPROPRIATE STRIPING AND PAVEMENT MARKINGS.
4. PROPOSED RETAINING WALL - CAST IN PLACE BY OTHERS
5. PROPOSED TRANSFORMER LOCATION. EXACT DIMENSIONS TBD.
6. PROPOSED REFUSE AND RECYCLING COMPACTORS
7. EXISTING MG&E EASEMENT AND DUCT BANK
8. REJECT CURB
9. PROPOSED SIDEWALK, 5" THICK
10. PROPOSED BOLLARDS
11. PROPOSED CROSSWALK
12. PROPOSED ELECTRIC EASEMENT
13. 30" MOUNTABLE CURB AND GUTTER, SEE DETAIL 2 ON C 504
14. PROPOSED 7" THICK CONCRETE LOADING AREA, SEE DETAIL ON C 504
15. BIORETENTION AREA, SEE DETAIL ON C 503
16. DRIVEWAY APRON, SEE DETAIL ON C 504
17. POUR NEW CURB AND GUTTER TO INFILL PREVIOUS DRIVEWAY APRON
18. PARKING OVERHANG OF 24"
19. 12" CONCRETE RIBBON CURB, SEE DETAIL ON SHEET C 504
20. CONCRETE STEPS AND RAILINGS BY OTHERS

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KEY PLAN

SHEET INFORMATION

0 20 FEET

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

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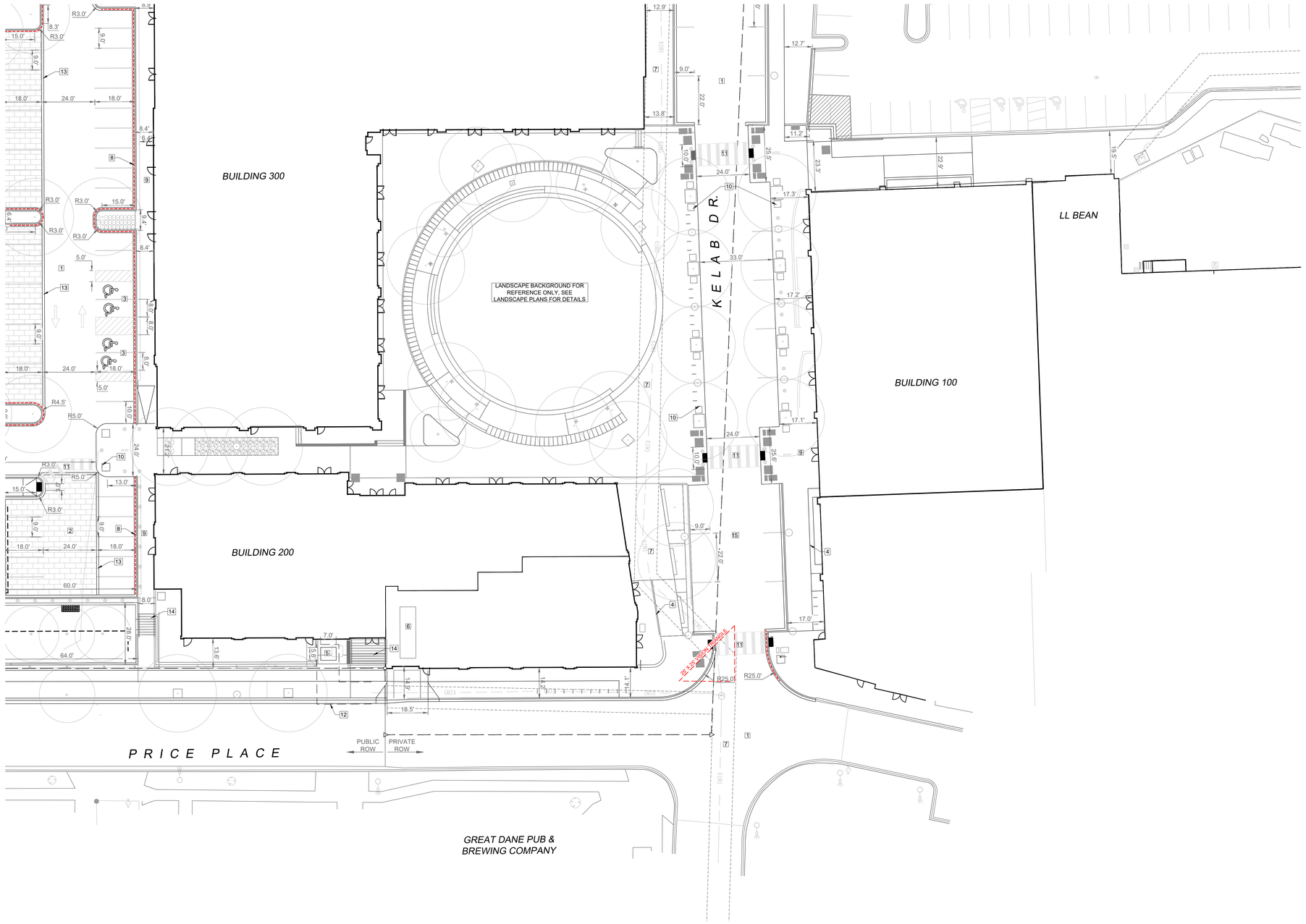
SITE PLAN

C 201



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11. PROPOSED CROSSWALK
12. PROPOSED ELECTRIC EASEMENT
13. 12" CONCRETE RIBBON CURB, SEE DETAIL ON SHEET C 504
14. CONCRETE STEPS AND RAILINGS BY OTHERS
15. CONCRETE PAVEMENT

0 20
FEET

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KEY PLAN

SHEET INFORMATION

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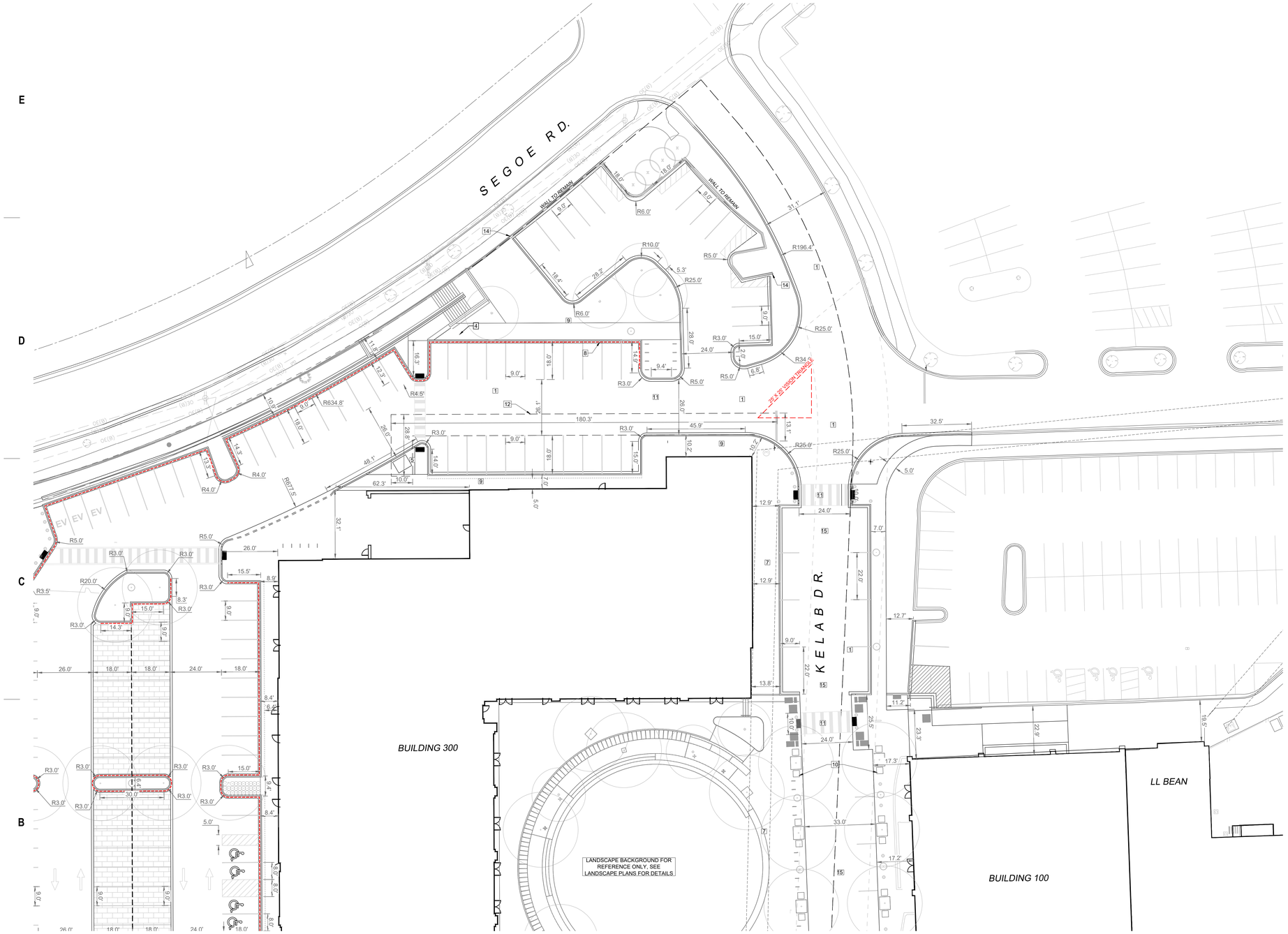
SITE PLAN

C 202



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4. PROPOSED RETAINING WALL, TYPE TBD
5. PROPOSED TRANSFORMER LOCATION. EXACT DIMENSIONS TBD.
6. PROPOSED REFUSE AND RECYCLING COMPACTORS
7. EXISTING MG&E EASEMENT AND DUCT BANK
8. REJECT CURB
9. PROPOSED SIDEWALK, 5" THICK
10. PROPOSED BOLLARDS
11. PROPOSED CROSSWALK
12. PROPOSED ELECTRIC EASEMENT
13. PROPOSED DRIVEWAY
14. A PORTION OF THE EXISTING RETAINING WALL TO REMAIN
15. CONCRETE PAVEMENT

0 20 FEET

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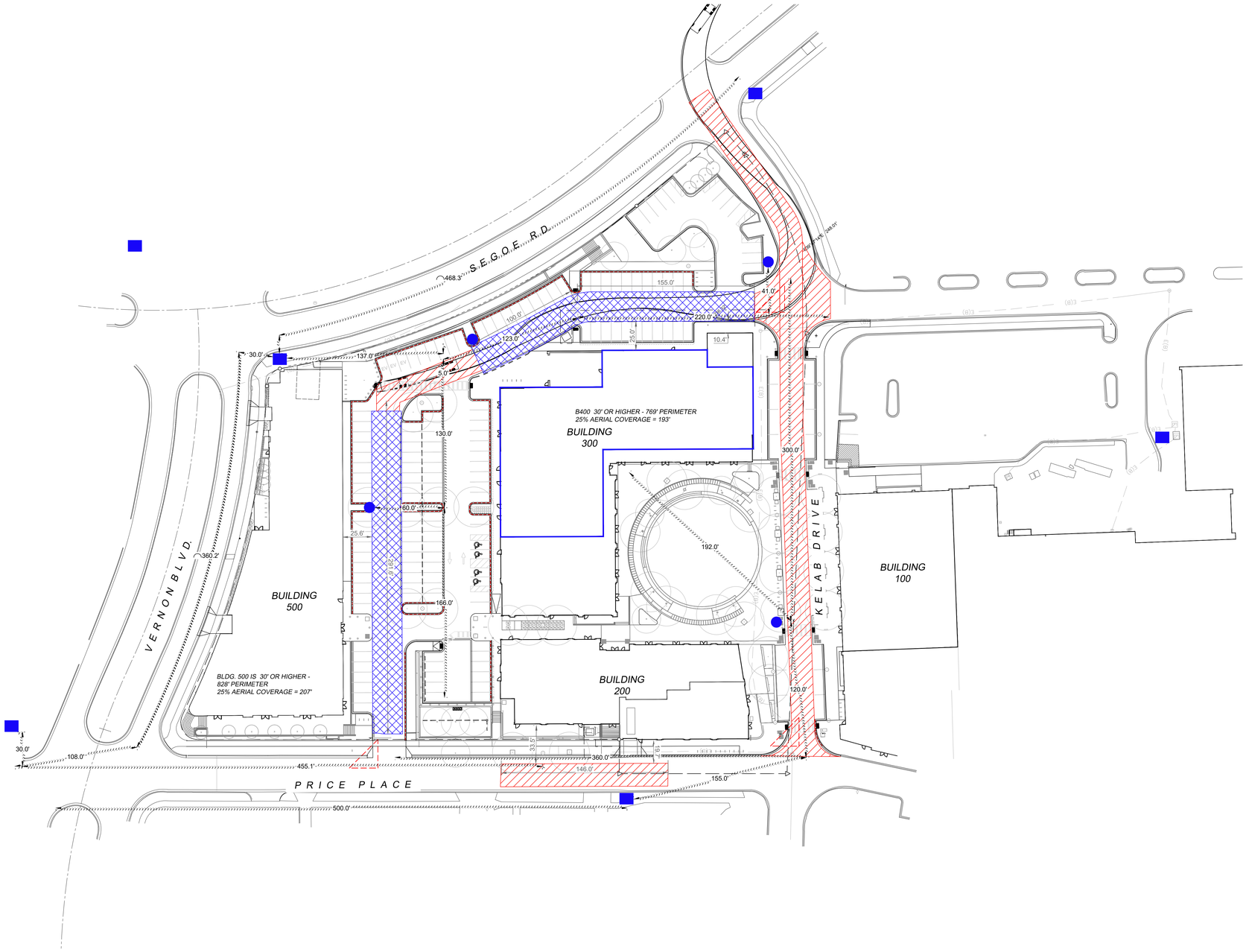
KEY PLAN

SHEET INFORMATION

PROJECT MANAGER SJA
PROJECT NUMBER 120.0311.30

SITE PLAN

C 203



EXISTING HYDRANT LOCATION

PROPOSED HYDRANT LOCATION

26' WIDE FIRE LANE AERIAL APPARATUS

20' WIDE FIRE LANE

LENGTH

HOSE LAY

0 40
FEET

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

eppstein uhen : architects

milwaukee 333 East Chicago Street Milwaukee, Wisconsin 53202 telephone 414.271.5350

madison 309 West Johnson Street, Suite 202 Madison, Wisconsin 53703 telephone 608.442.5350

WS DEVELOPMENT
33 BOYLSTON ST., STE 3000
CHESTNUT HILL, MA 02467
P 617.232.8900

SNYDER & ASSOCIATES
5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444

PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

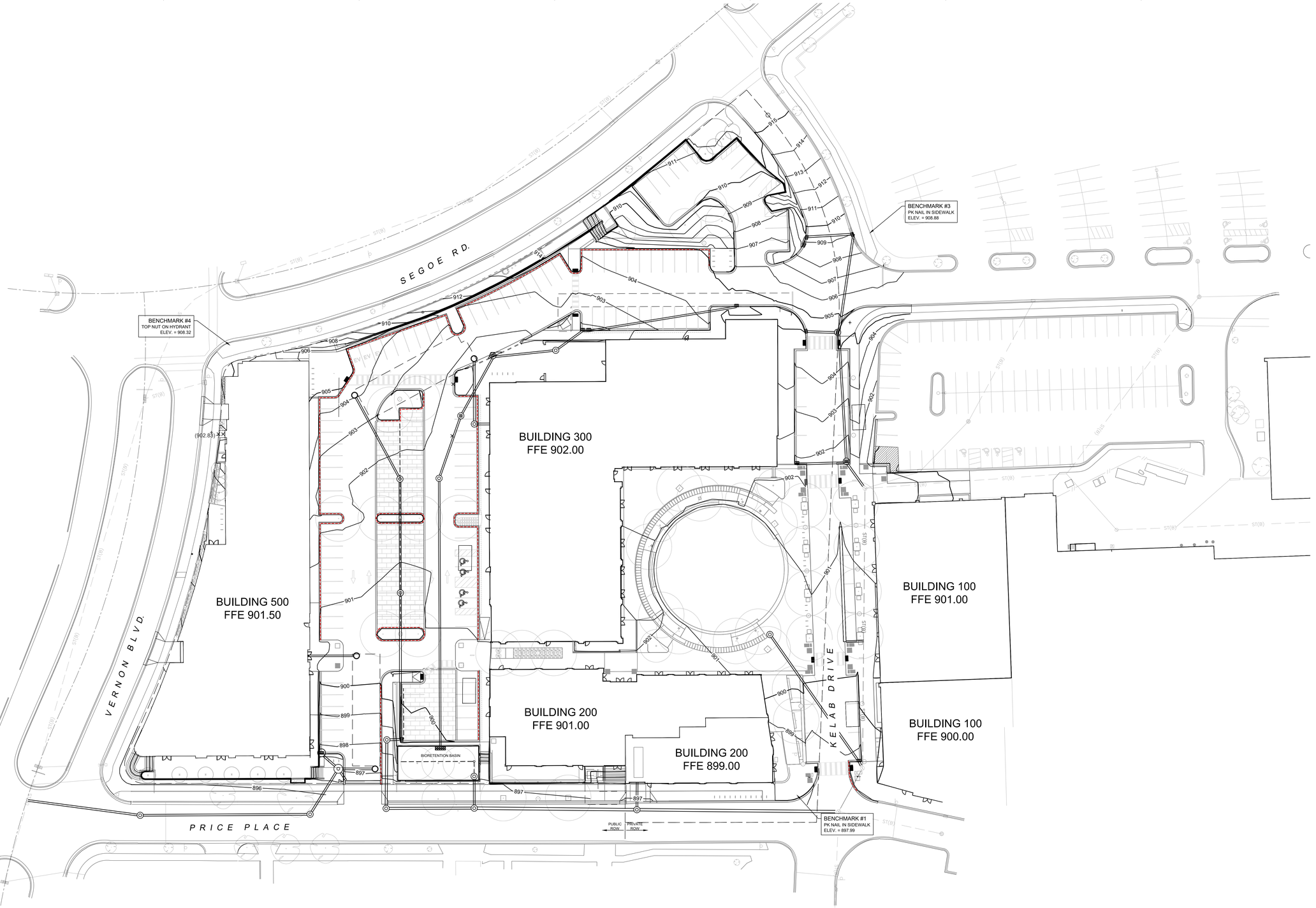
SHEET INFORMATION

PROJECT MANAGER SJA

PROJECT NUMBER 120.0311.30

FIRE ACCESS PLAN

C 204



SITE INFORMATION

TOTAL SITE AREA: 221,647 SF / 5.09 ACRES
EXISTING IMPERVIOUS AREA: 184,807 SF
NEW IMPERVIOUS AREA: 27,403 SF (12.36% LOT COVERAGE)
REDEVELOPED IMPERVIOUS AREA: 173,193 SF
REMOVED IMPERVIOUS AREA: 19,614 SF
NET IMPERVIOUS AREA: 192,596 SF

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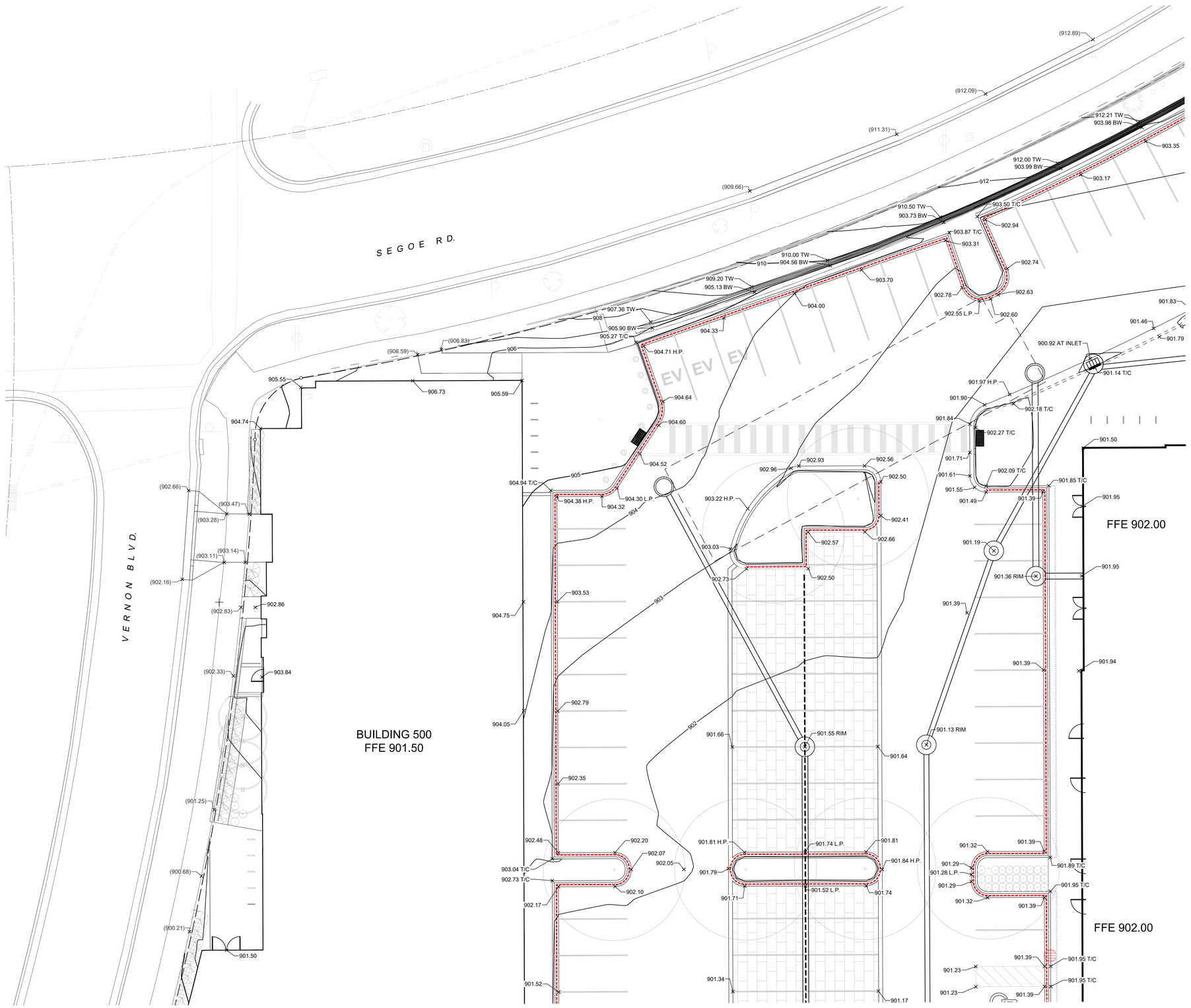
PROJECT NUMBER 120.0311.30

GRADING PLAN

C 300



BUILDING 500
FFE 901.50

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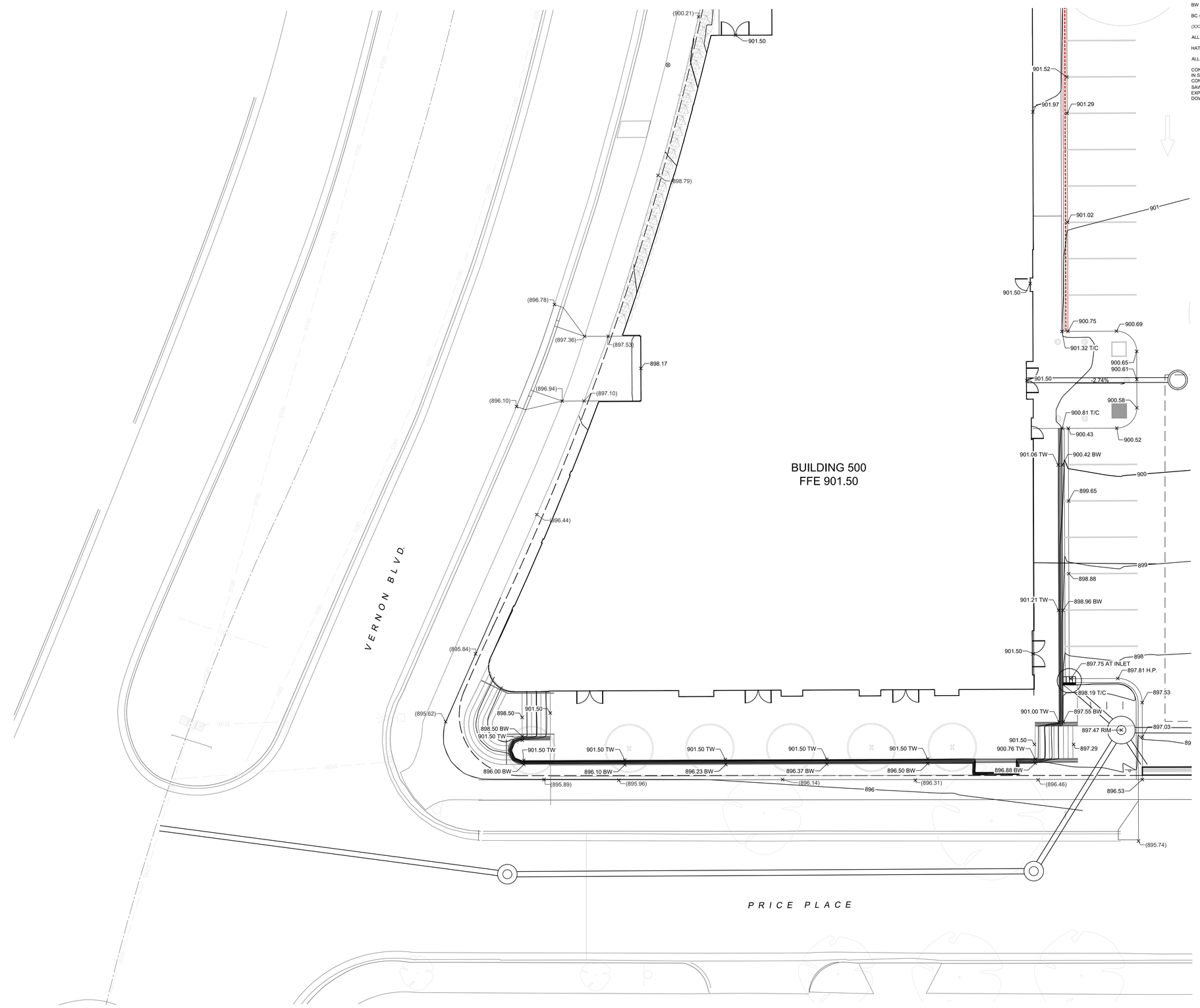
C 301



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BUILDING
400
FFE 902.00

BUILDING
300
FFE 901.00

BUILDING
300
FFE 899.00

P R I C E P L A C E

PUBLIC ROW

PRIVATE ROW

0 10
FEET

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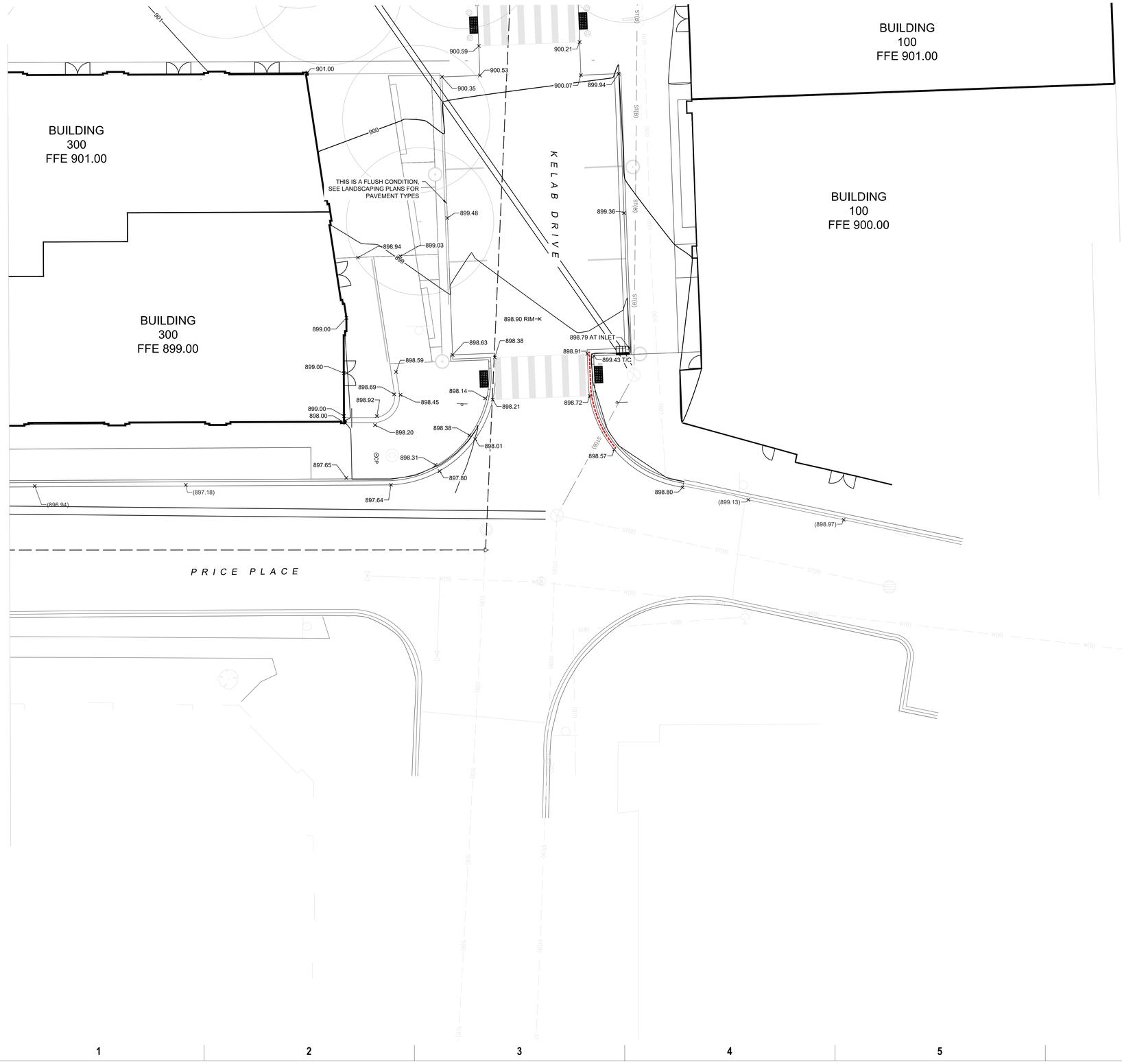
GRADING PLAN

C 303



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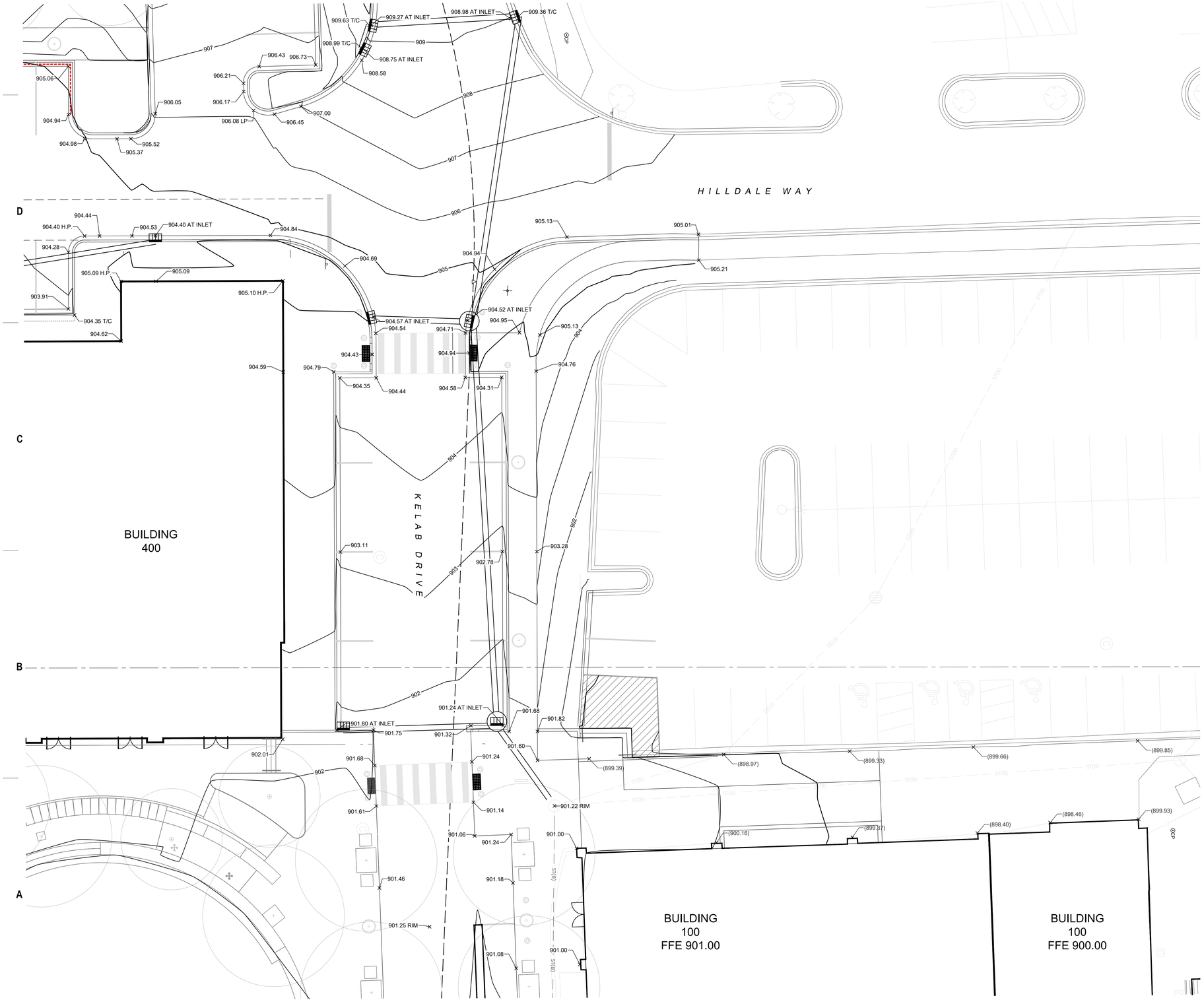
C 304



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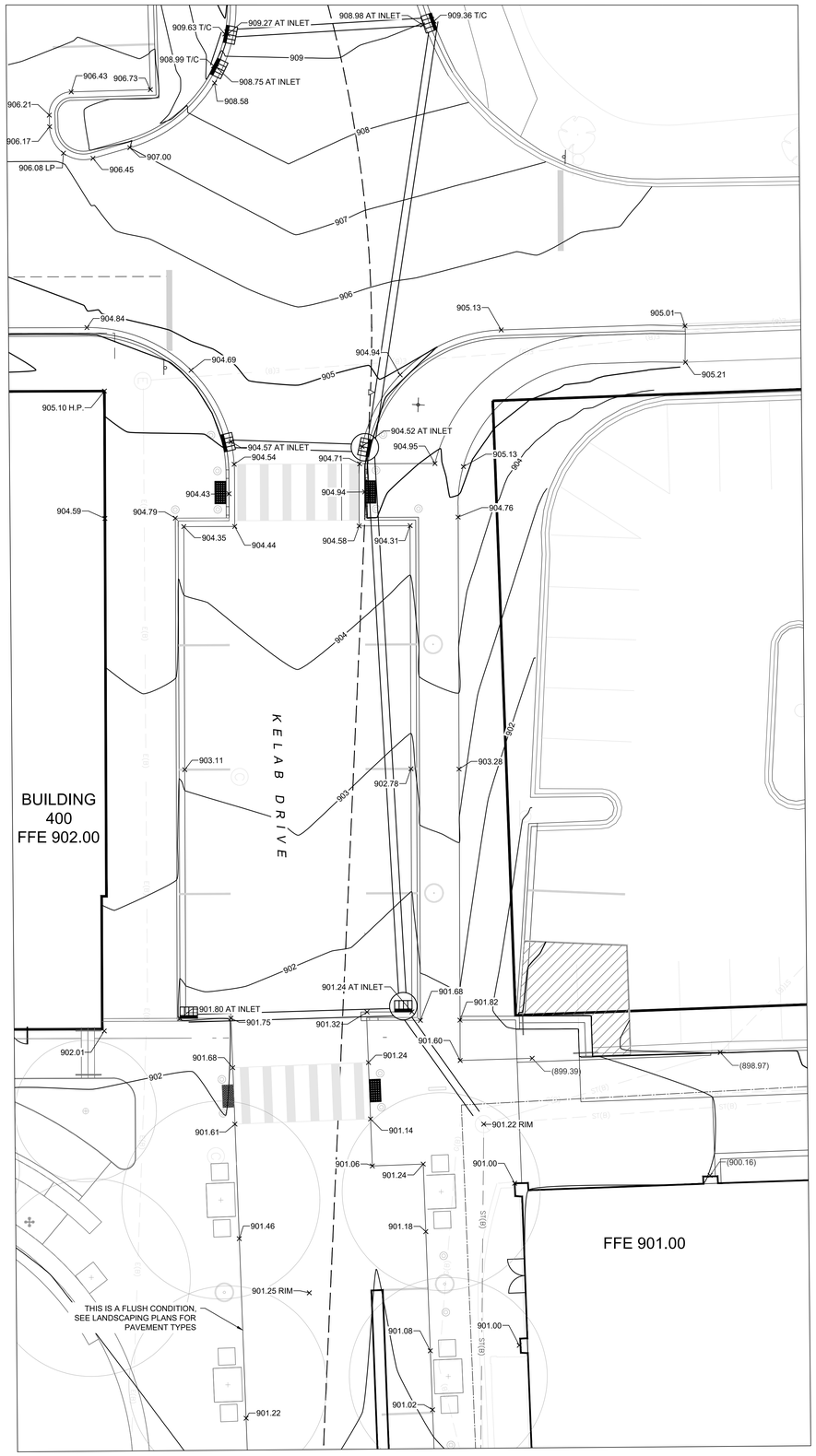
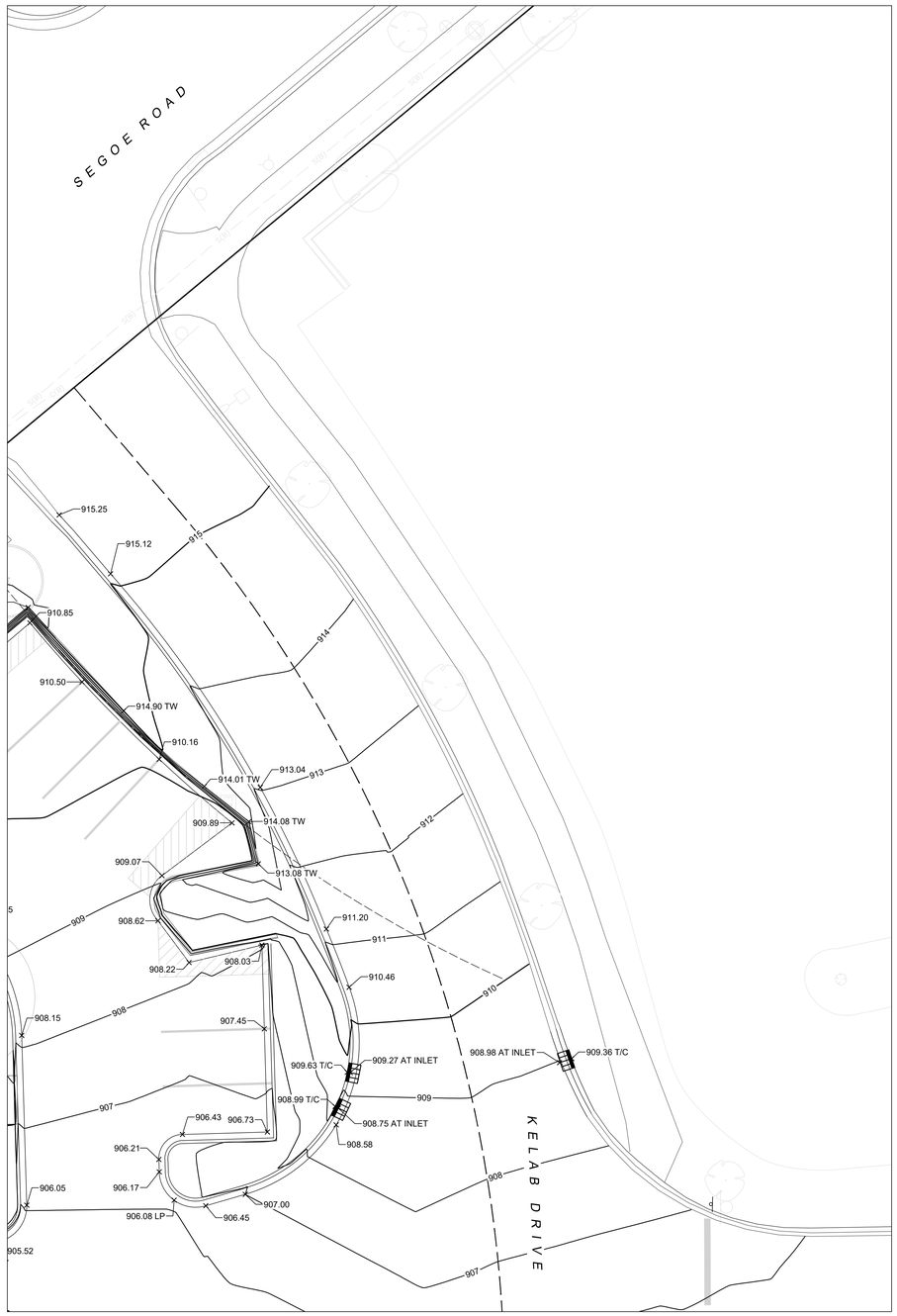
C 305





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SNYDER & ASSOCIATES
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PROJECT INFORMATION

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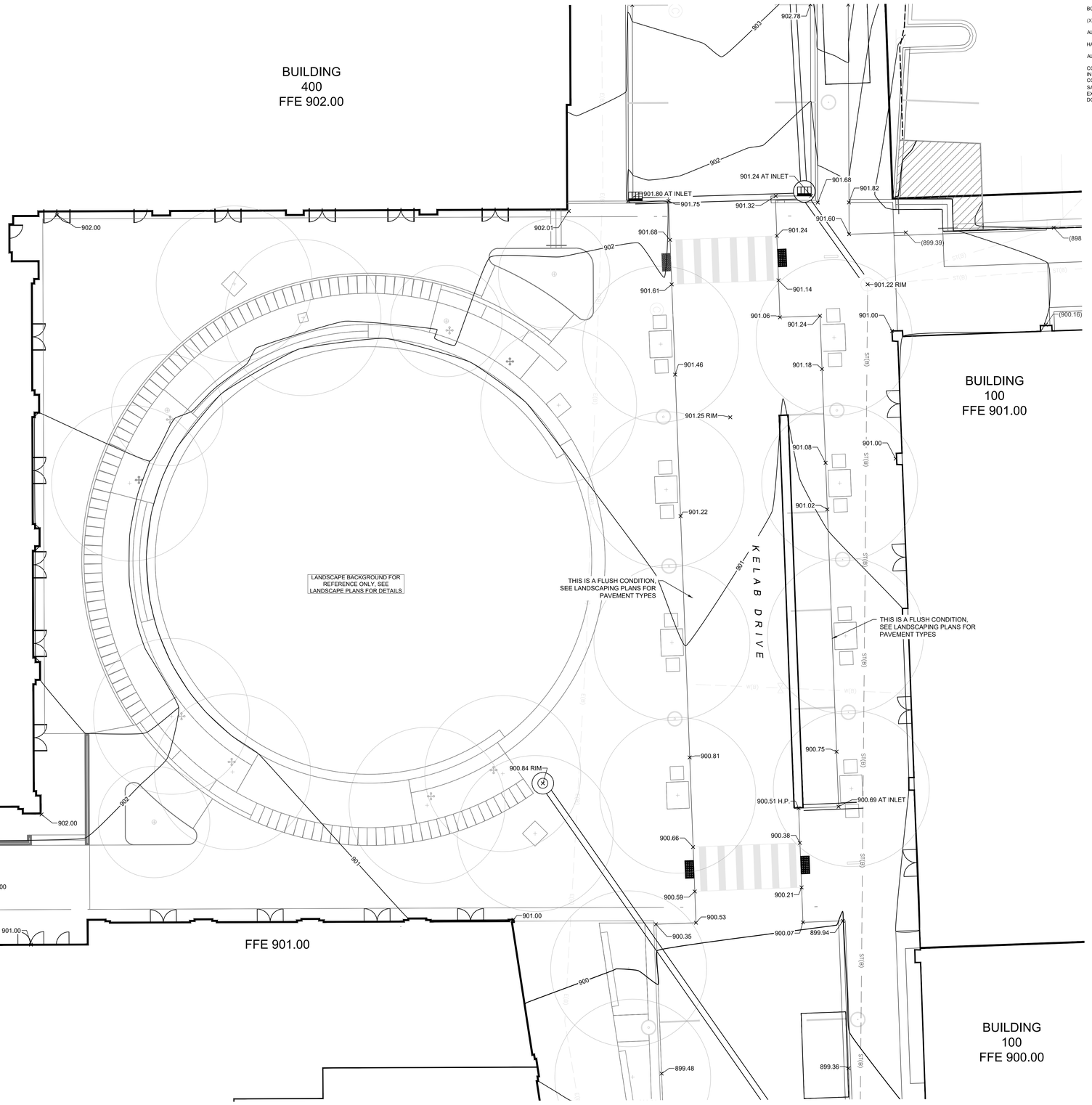

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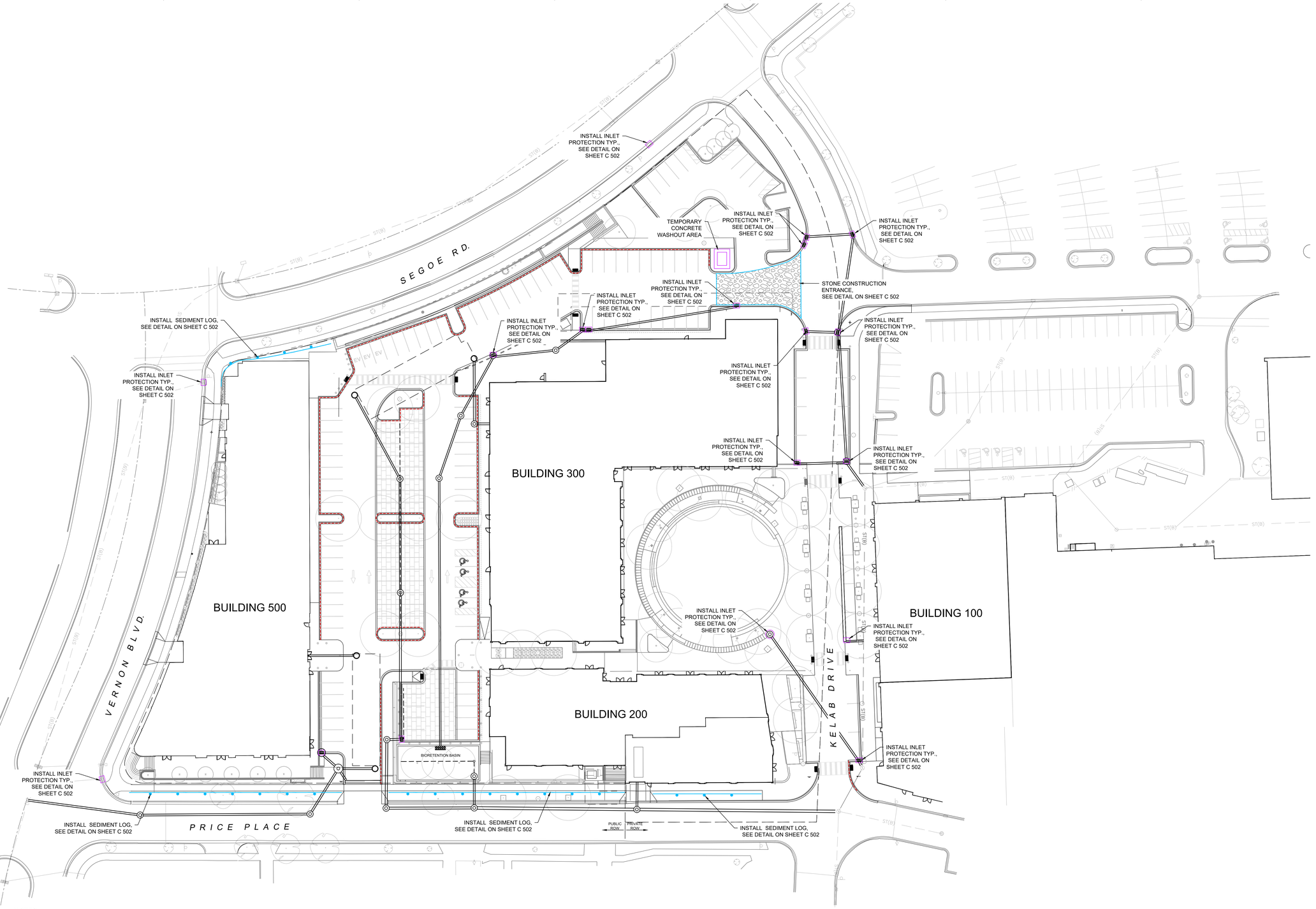

NOTES:

-ALL SILT FENCE MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO ANY SITE WORK.

-SITE EROSION CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES. SHOULD DEVICES BE REMOVED FOR WORK ACCESS, THEY SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNTIL PAVEMENTS HAVE BEEN INSTALLED AND ALL LANDSCAPE AREAS HAVE BEEN MULCHED AND SODDED. SEEDED AREAS MUST EXHIBIT MINIMUM OF 70% SOIL COVERAGE.

-REFER TO THE EROSION CONTROL PLAN NOTES AND DETAIL SHEETS FOR MORE INFORMATION.

CONSTRUCTION SEQUENCE

*INSTALL EROSION/SEDIMENT CONTROL MEASURES

*INSTALL STORMWATER MANAGEMENT SEDIMENT BASINS

*INSTALL STORM SEWER

*INSTALL STRUCTURES

*INSTALL PAVEMENTS

*INSTALL LAWN/ LANDSCAPE

*FLUSH STORM SEWER

*REMOVE EROSION CONTROL MEASURES ONLY AFTER ALL PAVEMENTS HAVE BEEN INSTALLED AND ALL SOILS HAVE BEEN STABILIZED

NOTE FOR GRADING CONTRACTOR:

ANY PROPERTY IRONS THAT ARE DISTURBED IN THE GRADING PROCESS SHALL BE RESET BY A LICENSED LAND SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.

NOTES:

ENGINEER TO OBTAIN RIGHT-OF-WAY EXCAVATION PERMIT PRIOR TO BEGINNING SITE WORK.

CONSTRUCTION FENCING TO BE INSTALLED AROUND ENTIRE CONSTRUCTION SITE. COORDINATE WITH OWNER FOR FENCING AND GATE LOCATION AND APPROPRIATE SIGNAGE LOCATION.

PLAN PREPARED FROM TOPOGRAPHIC SURVEY BY:

SNYDER & ASSOCIATES
5010 VOGES ROAD
MADISON, WI 53718
608-838-0444 EXT. 234

CONTRACTOR SHALL LOCATE ALL UTILITIES WHICH MAY AFFECT THIS WORK NOTIFY THE OWNER OF ANY POTENTIAL CONFLICTS.

CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED ELEVATIONS PRIOR TO START OF CONSTRUCTION. VERIFY CRITICAL ELEVATIONS TO ENSURE CONFORMANCE WITH GRADING PLAN, PARTICULARLY WITH WALK, AND/OR PAVEMENTS TO REMAIN. MEET EXISTING GRADES ALONG STREETS, PROPERTY LINES, AND DRIVEWAY ENTRANCES. RESTORE ALL EXISTING PAVEMENTS THAT REMAIN TO THEIR ORIGINAL, IF NOT BETTER CONDITION. NOTIFY OWNER OF ANY CONFLICTS.

AREAS NOT PAVED AND TO BE LANDSCAPED SHALL RECEIVE MINIMUM OF 4" DEPTH COMPACTED TOPSOIL.

CONTRACTOR SHALL COORDINATE GRADING AND INSTALLATION OF DRIVES IN R.O.W. WITH APPROPRIATE GOVERNMENT AGENCIES. OBTAIN APPROPRIATE PERMITS FOR GRADING AND DRAINAGE IN ALL R.O.W.

REFER TO OWNERS SPECIFICATIONS FOR CURB, APPROACH, AND CONCRETE PROFILES AS WELL AS ADDITIONAL SITE STANDARDS RELATED TO THIS PROJECT.

EXCAVATOR IS RESPONSIBLE FOR ALL EROSION CONTROL INSPECTIONS

0 30
FEET

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

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WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

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P 617.232.8900

SNYDER & ASSOCIATES
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608-838-0444

PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

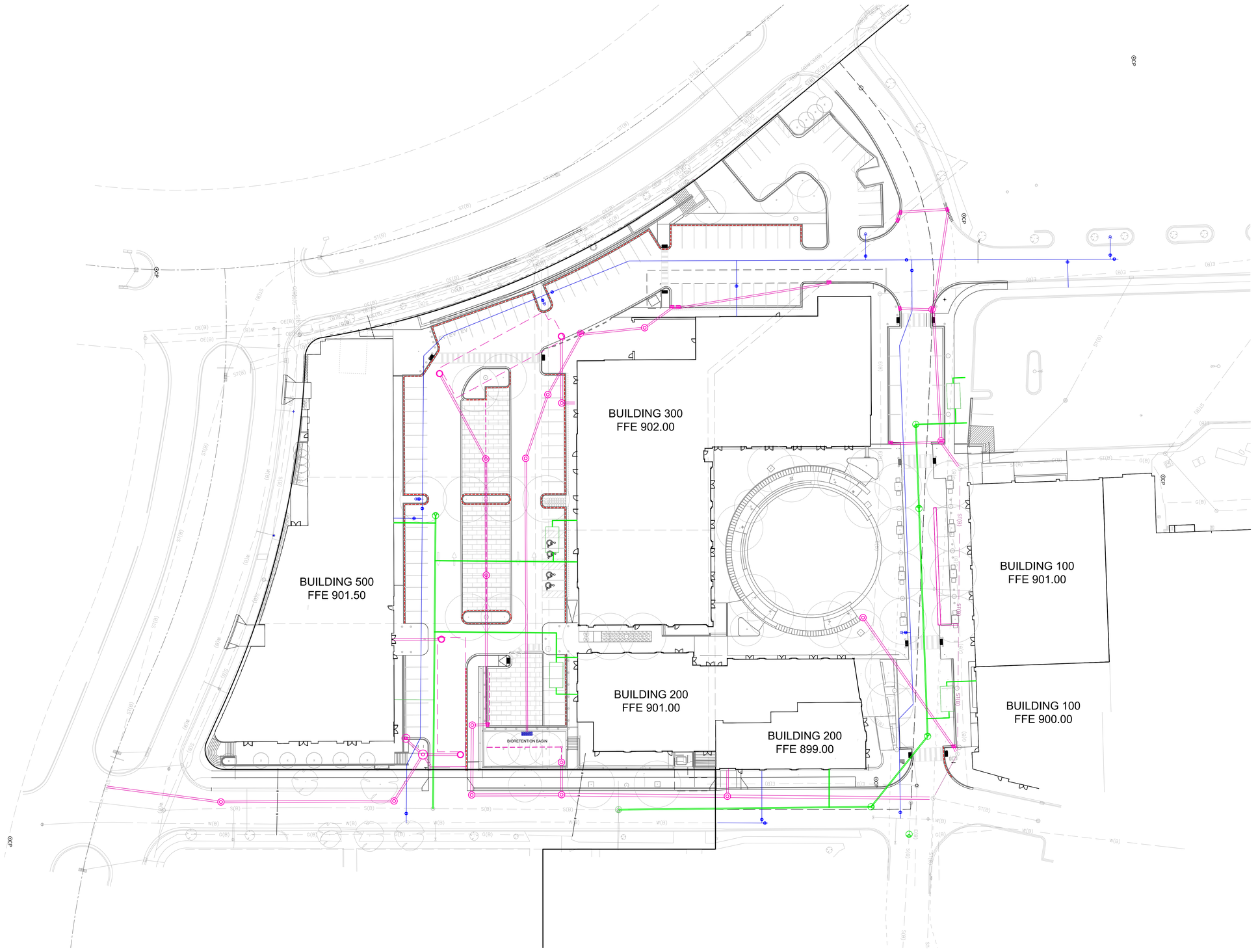
SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

EROSION CONTROL PLAN

C 309

V:\Projects\2020\120.0311.30\CAD\120.031.30 P300.dwg ALEXANDER KEEFE, EROSION CONTROL PLAN, 2023/03/10, 4:42 PM, ARCH FULL BLEED E1 (30.00 X 42.00 INCHES)



LEGEND

- SANITARY SEWER PIPES & STRUCTURES
- STORM SEWER PIPES & STRUCTURES
- WATER PIPES & STRUCTURES

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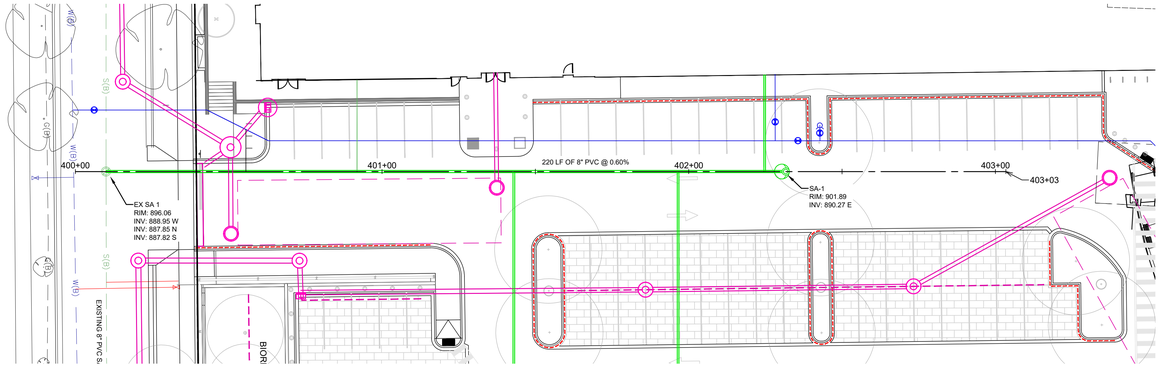
KEY PLAN

SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

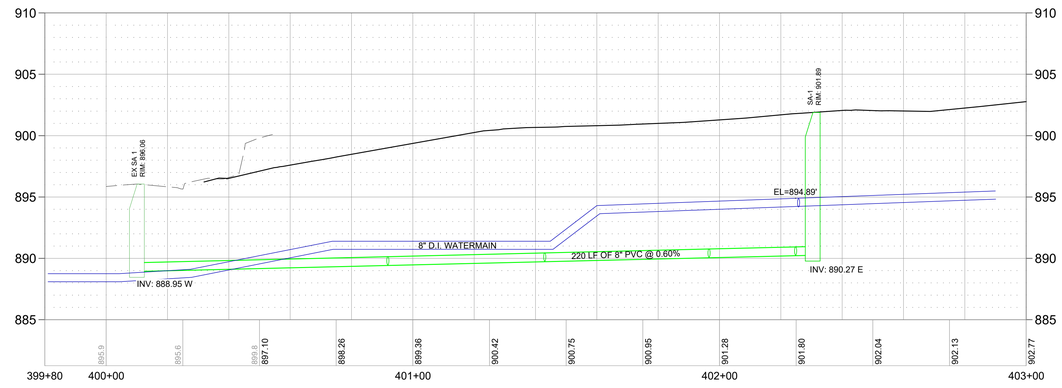
OVERALL UTILITY PLAN

C 400

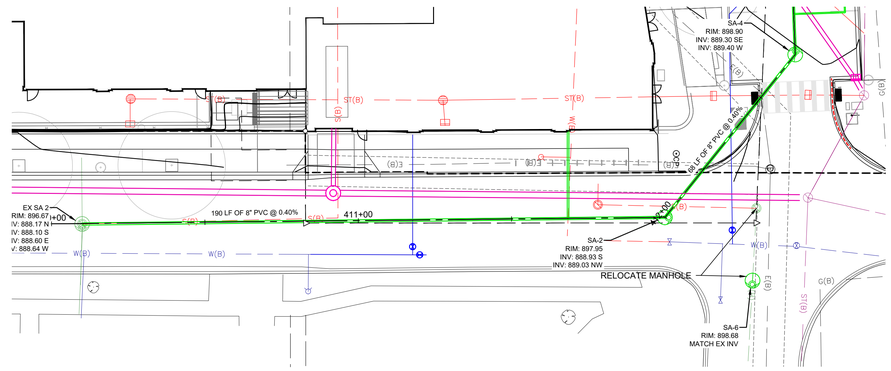


SANITARY SEWER PLAN VIEW

SCALE : 1" = 20'

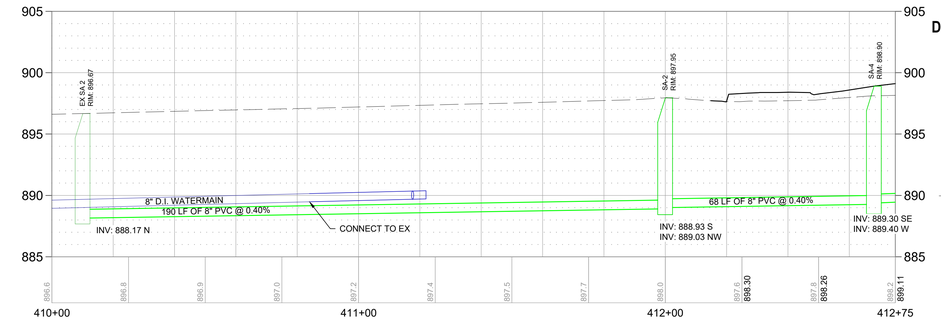


SANITARY SEWER PROFILE VIEW

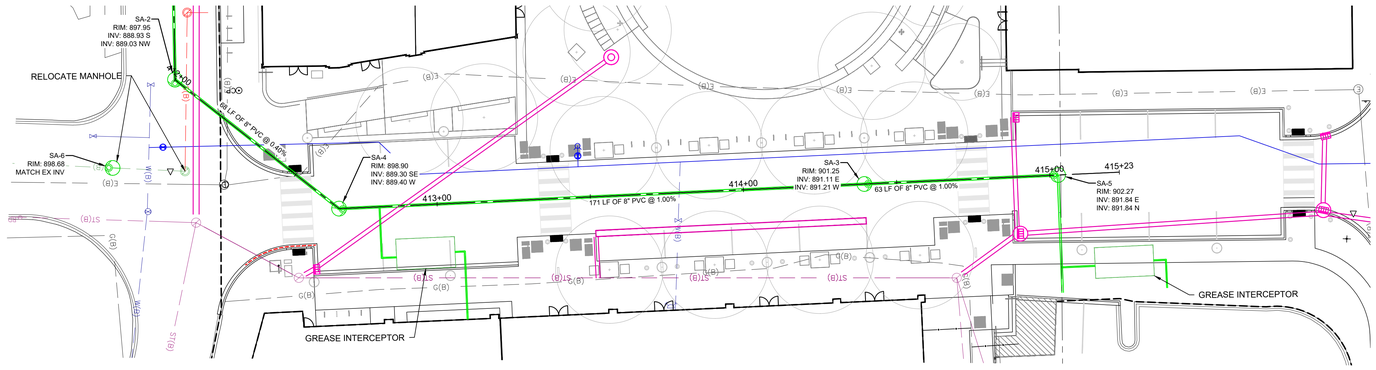


SANITARY SEWER PLAN VIEW

SCALE : 1" = 20'

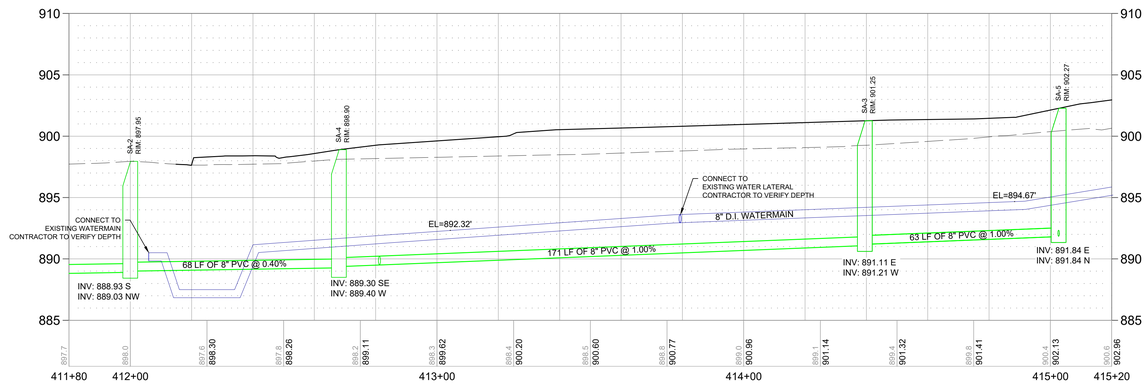


SANITARY SEWER PROFILE VIEW



SANITARY SEWER PLAN VIEW

SCALE : 1" = 20'



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PROJECT INFORMATION

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ISSUANCE AND REVISIONS

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	3/13/2023	CITY SUBMITTAL

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SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

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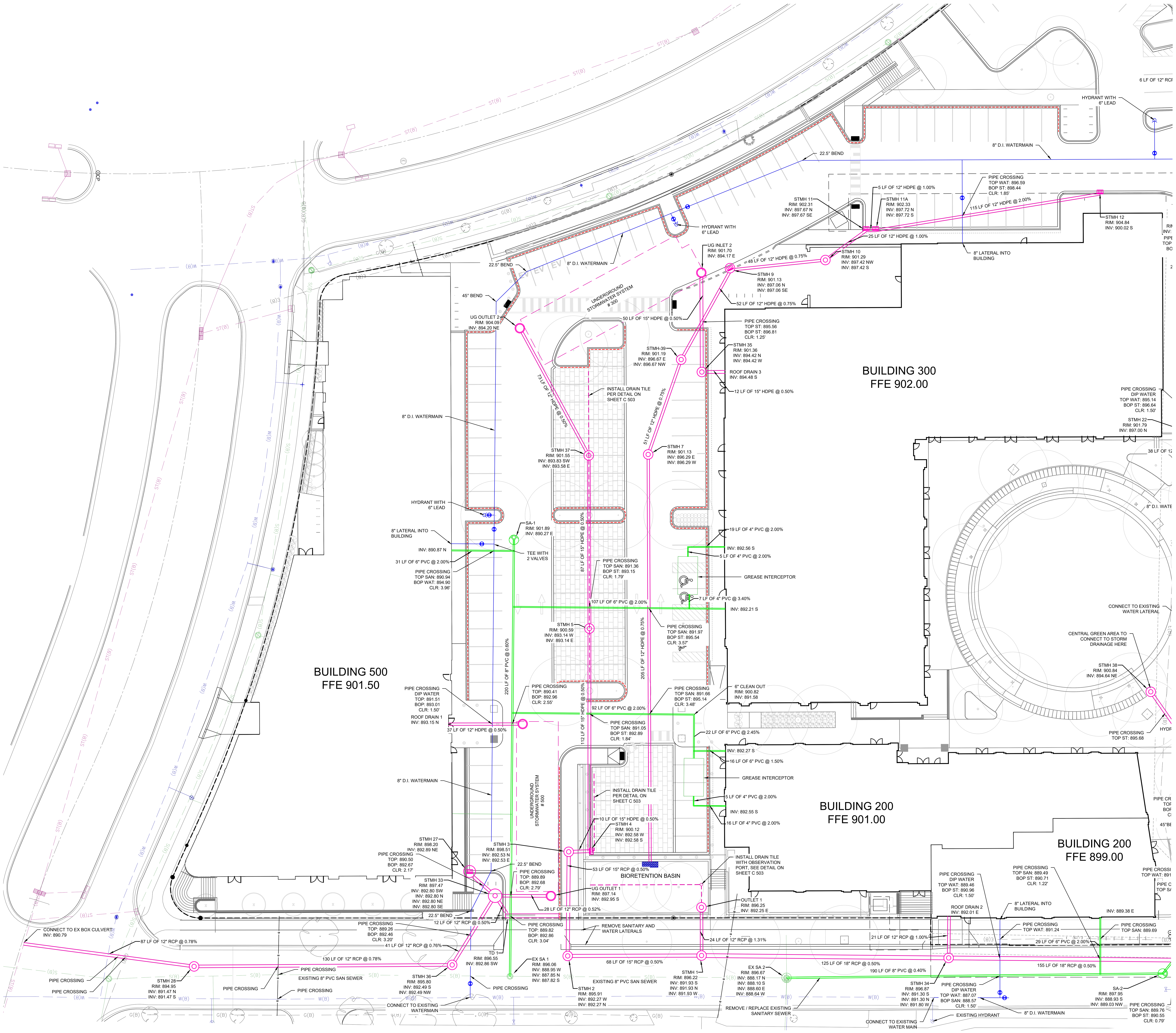
SANITARY SEWER PLAN & PROFILE

C 401



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KEY PLAN

SHEET INFORMATION

PROJECT MANAGER SJA
PROJECT NUMBER 120.0311.30

UTILITY PLAN

C 402

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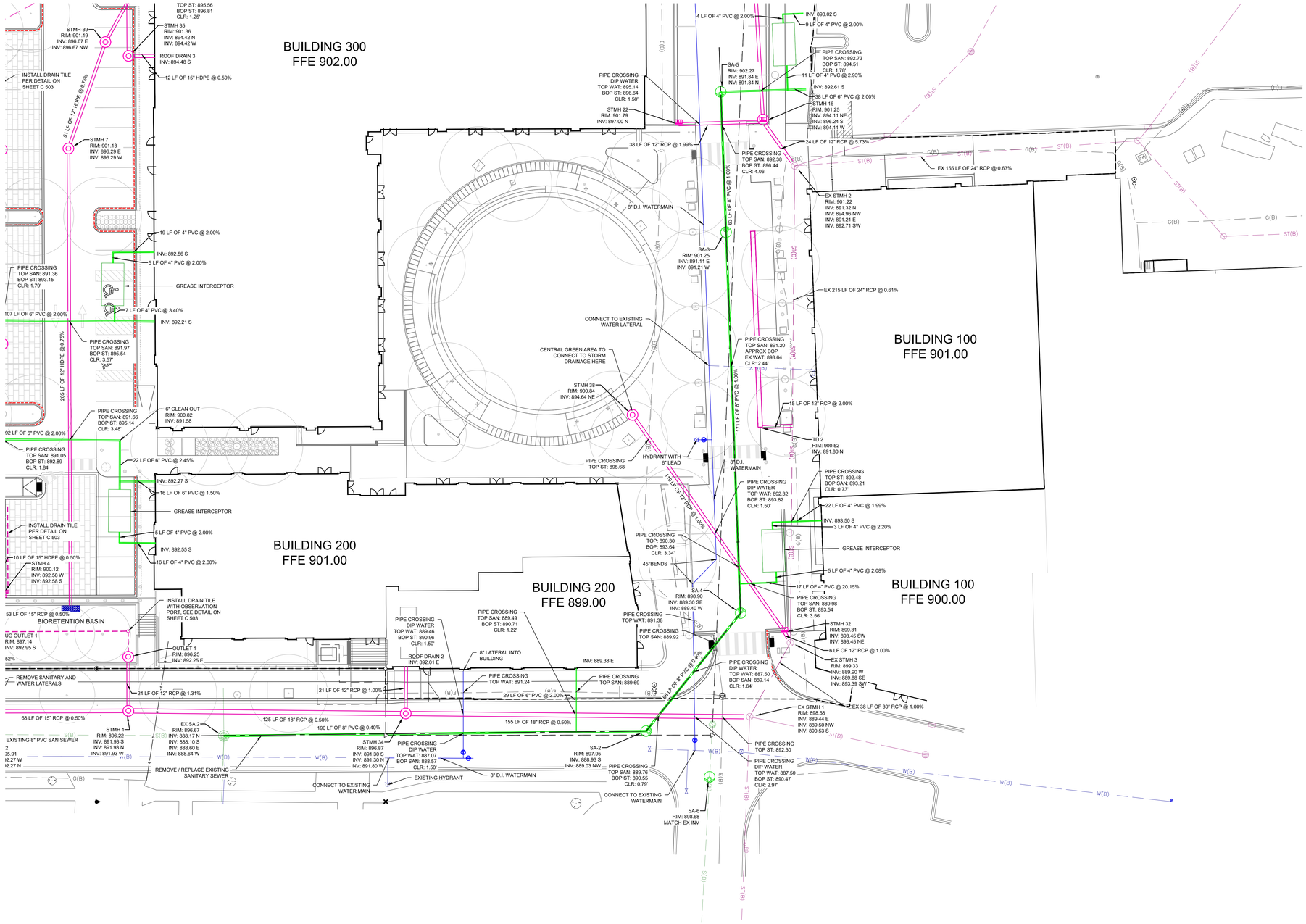

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

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ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

UTILITY PLAN

C 403

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

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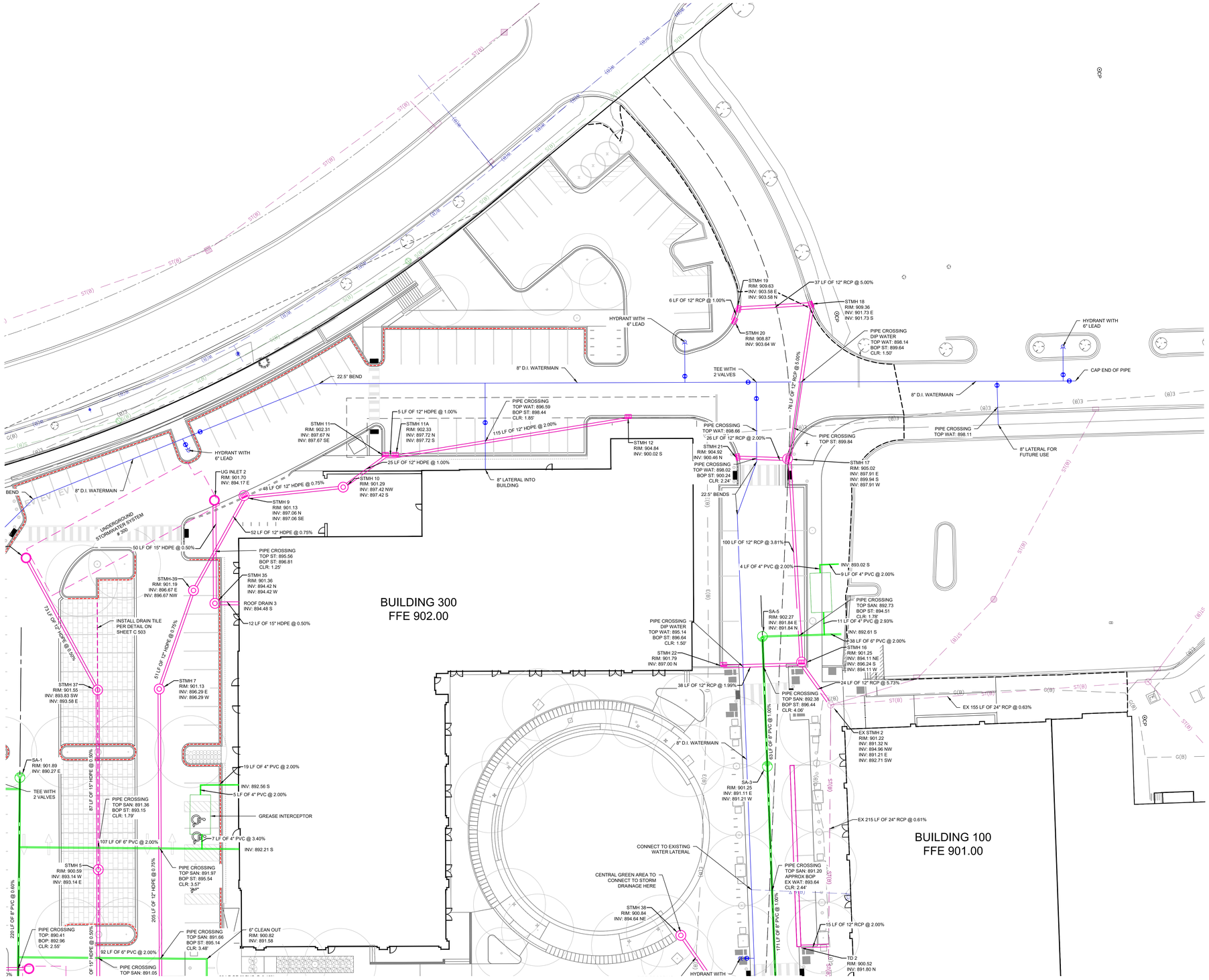

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UTILITY PLAN

C 404

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STRUCTURE TABLE					
STRUCTURE NAME	RIM EL	STRUCTURE TYPE	INVERTS IN	INVERTS OUT	FRAME/GRATE
EX SA 1	896.06	ECCENTRIC MH	W = 888.95		R 1550-0054
EX SA 2	896.67	ECCENTRIC MH	N = 888.17		R 1550-0054
SA-1	901.89	ECCENTRIC MH		E = 890.27	R 1550-0054
SA-2	897.95	ECCENTRIC MH	NW = 889.03	S = 888.93	R 1550-0054
SA-3	901.25	ECCENTRIC MH	W = 891.21	E = 891.11	R 1550-0054
SA-4	898.90	ECCENTRIC MH	W = 889.40	SE = 889.30	R 1550-0054
SA-5	902.27	ECCENTRIC MH	N = 891.84	E = 891.84	R 1550-0054
SA-6	898.68	ECCENTRIC MH			R 1550-0054

SANITARY PIPE TABLE								
PIPE NAME	PIPE TYPE	SIZE (IN.)	FROM	TO	LENGTH (FT)	START INV	END INV	SLOPE
SAP-1	PVC	8	SA-1	EX SA 1	220	890.27	888.95	0.60%
SAP-2	PVC	8	SA-2	EX SA 2	190	888.93	888.17	0.40%
SAP-3	PVC	8	SA-3	SA-4	171	891.11	889.40	1.00%
SAP-4	PVC	8	SA-4	SA-2	68	889.30	889.03	0.40%
SAP-5	PVC	8	SA-5	SA-3	63	891.84	891.21	1.00%
SAP-6	PVC	6			31	890.87	890.24	2.00%
SAP-7	PVC	6			107	892.21	890.07	2.00%
SAP-8	PVC	4			7	892.09	891.85	3.40%
SAP-9	PVC	4			5	892.19	892.09	2.00%
SAP-10	PVC	4			19	892.56	892.19	2.00%
SAP-11	PVC	6			92	891.58	889.75	2.00%
SAP-12	PVC	6			22	892.12	891.58	2.45%
SAP-13	PVC	6			16	892.27	892.03	1.50%
SAP-14	PVC	4			5	892.22	892.12	2.00%
SAP-15	PVC	4			16	892.55	892.22	2.00%
SAP-16	PVC	6			29	889.38	888.81	2.00%
SAP-17	PVC	4			17	892.89	889.53	20.15%
SAP-18	PVC	4			5	892.99	892.89	2.08%
SAP-19	PVC	4			3	893.06	892.99	2.20%
SAP-20	PVC	4			22	893.50	893.06	1.99%
SAP-21	PVC	6			38	892.61	891.84	2.00%
SAP-22	PVC	4			11	892.76	892.44	2.93%
SAP-23	PVC	4			4	892.84	892.76	2.00%
SAP-24	PVC	4			9	893.02	892.84	2.00%

STRUCTURE TABLE					
STRUCTURE NAME	RIM EL	STRUCTURE TYPE	INVERTS IN	INVERTS OUT	FRAME/GRATE
EX STMH 1	898.58	CONC MH	NW = 889.50 S = 890.53		R 1550-0054
EX STMH 2	901.22	CONC MH	SW = 892.71	E = 891.21	R 1550-0054
EX STMH 3	899.33	CONC MH	W = 889.90 SW = 893.39	SE = 889.88	R 1550-0054
OUTLET 1	896.25	OUTLET STRUCTURE		E = 892.25	48" HAALA GRATE
ROOF DRAIN 1	894.31	ROOF DRAIN		N = 893.15	
ROOF DRAIN 2	893.24	ROOF DRAIN		E = 892.01	
ROOF DRAIN 3	895.91	ROOF DRAIN		S = 894.48	
STMH-39	901.19	CONC MH	NW = 896.67	E = 896.67	R-2040
STMH 1	896.22	CONC MH	S = 891.93 W = 891.93	N = 891.93	R 1550-0054
STMH 2	895.91	CONC MH	W = 892.27	N = 892.27	R 1550-0054
STMH 3	898.51	CONC MH	N = 892.53	E = 892.53	R 1550-0054
STMH 4	900.12	2' X 3' CI	W = 892.58	S = 892.58	R-3067 TYPE R
STMH 5	900.59	CONC MH	W = 893.14	E = 893.14	R-2040
STMH 7	901.13	CONC MH	W = 896.29	E = 896.29	R-2040
STMH 9	901.13	CONC MH W/INLET	N = 897.06	SE = 897.06	R-3067 TYPE R
STMH 10	901.29	CONC MH	NW = 897.42	S = 897.42	R-2040
STMH 11	902.31	2' X 3' CI	N = 897.67	SE = 897.67	R-3067 TYPE R
STMH 11A	902.33	2' X 3' CI	N = 897.72	S = 897.72	R-3067 TYPE R
STMH 12	904.84	2' X 3' CI		S = 900.02	R-3067 TYPE R
STMH 16	901.25	48" CONC MH W/INLET	S = 896.24 W = 894.11	NE = 894.11	R-3067 TYPE R
STMH 17	905.02	CONC MH W/INLET	S = 899.94 W = 897.91	E = 897.91	R-3067 TYPE R
STMH 18	909.36	2' X 3' CI	S = 901.73	E = 901.73	R-3067 TYPE R
STMH 19	909.63	2' X 3' CI	E = 903.58	N = 903.58	R-3067 TYPE R
STMH 20	908.87	2' X 3' CI		W = 903.64	R-3067 TYPE R
STMH 21	904.92	2' X 3' CI		N = 900.46	R-3067 TYPE R
STMH 22	901.79	2' X 3' CI		N = 897.00	R-3067 TYPE R
STMH 27	898.20	CONC MH W/INLET		NE = 892.89	R-3067 TYPE R
STMH 28	894.95	CONC MH	N = 891.47	S = 891.47	R 1550-0054
STMH 32	899.31	2' X 3' CI	SW = 893.45	NE = 893.45	R-3067 TYPE R
STMH 33	897.47	72" CONC MH	SW = 892.80 N = 892.80 NE = 892.80	SE = 892.80	R 1550-0054
STMH 34	896.87	CONC MH	S = 891.30 W = 891.80	N = 891.30	R 1550-0054
STMH 35	901.36	CONC MH	N = 894.42	W = 894.42	R 1550-0054
STMH 36	895.80	CONC MH	NW = 892.49	S = 892.49	R 1550-0054
STMH 37	901.55	CONC MH	SW = 893.83	E = 893.58	R-2040
STMH 38	900.84	CONC MH		NE = 894.64	R 1550-0054
TD 1	896.55	ACO DRAIN MINNIKLASSIK K50		SW = 892.86	GRATE A
TD 2	901.01	ACO DRAIN MINNIKLASSIK K50		N = 891.80	GRATE A
UG INLET 1	900.63	CONC MH	S = 892.96		R-2040
UG INLET 2	901.70	CONC MH	E = 894.17		R-2040
UG OUTLET 1	897.14	CONC MH		S = 892.95	R-2040
UG OUTLET 2	904.09	CONC MH		NE = 894.20	R-2040

STORM PIPE TABLE								
PIPE NAME	PIPE TYPE	SIZE (IN.)	FROM	TO	LENGTH (FT)	START INV	END INV	SLOPE
STP-1	HDPE	12	STMH 7		205	896.29	894.75	0.75%
STP-2	HDPE	12	STMH-39	STMH 7	51	896.67	896.29	0.75%
STP-2A	HDPE	12	STMH 9	STMH-39	52	897.06	896.67	0.75%
STP-3	HDPE	12	STMH 10	STMH 9	48	897.42	897.06	0.75%
STP-4	HDPE	12	STMH 11	STMH 10	25	897.67	897.42	1.00%
STP-4A	HDPE	12	STMH 11A	STMH 11	5	897.72	897.67	1.00%
STP-5	HDPE	12	STMH 12	STMH 11A	115	900.02	897.72	2.00%
STP-7	RCP	18	STMH 34	EX STMH 1	155	891.30	890.53	0.50%
STP-8	RCP	12	ROOF DRAIN 2	STMH 34	21	892.01	891.80	1.00%
STP-9	RCP	18	STMH 1	STMH 34	125	891.93	891.30	0.50%
STP-10	RCP	12	OUTLET 1	STMH 1	24	892.25	891.93	1.31%
STP-11	RCP	15	STMH 2	STMH 1	68	892.27	891.93	0.50%
STP-12	RCP	15	STMH 3	STMH 2	53	892.53	892.27	0.50%
STP-13	HDPE	15	STMH 4	STMH 3	10	892.58	892.53	0.50%
STP-14	HDPE	15	STMH 5	STMH 4	112	893.14	892.58	0.50%
STP-15	HDPE	15	STMH 37	STMH 5	87	893.58	893.14	0.50%
STP-16	HDPE	12	UG OUTLET 2	STMH 37	73	894.20	893.83	0.50%
STP-17	RCP	30	EX STMH 3	EX STMH 1	38	889.88	889.50	1.00%
STP-20	RCP	12	TD 2		15	891.80	891.49	2.00%
STP-21	RCP	24	EX STMH 2	EX STMH 3	215	891.21	889.90	0.61%
STP-22	RCP	12	STMH 22	STMH 16	38	897.00	896.24	1.99%
STP-24	RCP	12	STMH 16	EX STMH 2	24	894.11	892.71	5.73%
STP-26	RCP	12	STMH 17	STMH 16	100	897.91	894.11	3.81%
STP-27	RCP	12	STMH 21	STMH 17	26	900.46	899.94	2.00%
STP-28	RCP	12	STMH 18	STMH 17	76	901.73	897.91	5.00%
STP-29	RCP	12	STMH 19	STMH 18	37	903.58	901.73	5.00%
STP-30	RCP	12	STMH 20	STMH 19	6	903.64	903.58	1.00%
STP-37	RCP	12	STMH 28		87	891.47	890.79	0.78%
STP-38	RCP	12	STMH 36	STMH 28	130	892.49	891.47	0.78%
STP-39	RCP	12	STMH 33	STMH 36	41	892.80	892.49	0.76%
STP-40	RCP	12	TD 1	STMH 33	12	892.86	892.80	0.50%
STP-41	RCP	12	STMH 27	STMH 33	17	892.89	892.80	0.50%
STP-42	RCP	12	UG OUTLET 1	STMH 33	28	892.95	892.80	0.52%
STP-43	HDPE	15	STMH 35	UG INLET 2	50	894.42	894.17	0.50%
STP-44	HDPE	15	ROOF DRAIN 3	STMH 35	12	894.48	894.42	0.50%
STP-45	HDPE	12	ROOF DRAIN 1	UG INLET 1	37	893.15	892.96	0.50%
STP-46	RCP	12	STMH 38	STMH 32	119	894.64	893.45	1.00%
STP-47	RCP	12	STMH 32	EX STMH 3	6	893.45	893.39	1.00%

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

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ISSUANCE AND REVISIONS

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KEY PLAN

SHEET INFORMATION

PROJECT MANAGER SJA

PROJECT NUMBER 120.0311.30

UTILITY PLAN

C 405

SANITARY SEWER NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE. SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
3. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.
4. ALL CONNECTIONS TO EXISTING PIPES AND MANHOLES SHALL BE CORED CONNECTIONS.
5. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
6. MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS:
   SANITARY SEWER SHALL BE PVC IN ACCORDANCE WITH ASTM 3034, SDR-35 AND BEDDED WITH CLASS C BEDDING.
   BEDDING: ⅜" TO 1 ½" CLEAR STONE
   COVER: ⅜" TO 1 ½" CLEAR STONE

   TRACER WIRE SHALL BE INSTALLED WITH ALL NEW LATERALS.
   TRACER WIRE BOXES SHALL BE PROVIDED AND LOCATED 3.5' BEHIND THE BACK OF CURB.
   "SEWER" SHALL BE STAMPED IN THE LID OF THE ACCESS BOX.
   TRACER WIRE SHALL EXTEND TO THE RIGHT OF WAY.
   ALL LATERAL ENDS SHALL BE MARKED WITH A TREATED 4" X 4" POST AND THE TOP OF THE POST SHALL BE PAINTED GREEN. LATERAL END SHALL BE CAPPED WITH A GLUED ON CAP.

   LATERALS ARE NOT ALLOWED TO BE CONNECTED DIRECTLY INTO A MANHOLE.

   ALL SANITARY MANHOLE CASTINGS SHALL BE NEENAH R-1550 WITH TYPE B NON-ROCKING LIDS AND CONCEALED PICK HOLES.

   SANITARY MANHOLES SHALL HAVE EXTERNAL CHIMNEY SEALS.

   ALL MANHOLE JOINTS SHALL BE WRAPPED WITH GATOR WRAP OR APPROVED EQUAL. EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE HAULED OFF-SITE AND SELECT TRENCH BACKFILL WILL BE REQUIRED.

   ALL SANITARY SEWER MAINS WILL BE REQUIRED TO BE TELEVISED. 2 COPIES OF THE TELEVISING REPORT AND DVD SHALL BE PROVIDED TO THE PUBLIC SERVICES DIRECTOR. MANDRELL TESTING IS ALSO REQUIRED ON ALL SANITARY SEWER. LOW PRESSURE AIR TESTS ARE REQUIRED ON ALL SANITARY SEWER CONSTRUCTION.

   ALL MANHOLES INSTALLED OUTSIDE OF THE RIGHT-OF-WAY SHALL HAVE A RIM ELEVATION A MINIMUM OF 1' ABOVE THE PROPOSED GROUND AND BE MARKED WITH A TREATED 4" X 4" POST AND HAVE A SIGN WITH THE WORDS "SANITARY SEWER" ATTACHED TO THE POST.

   LATERAL DEPTH AT THE RIGHT-OF-WAY SHALL NOT EXCEED 12' WITHOUT PROPER JUSTIFICATION. VARIENCES FROM THIS MAP BE APPROVED BY THE PUBLIC SERVICES DIRECTOR.

   ADJUSTMENT RINGS SHALL HAVE A MINIMUM HEIGHT OF 4" AND A MAXIMUM HEIGHT OF 12". ADJUSTMENT RINGS SHALL BE POLYETHYLENE PLASTIC UNLESS OTHERWISE APPROVED. MAINTAIN A MINIMUM SEPARATION OF 8' OF HORIZONTAL SEPARATION BETWEEN WATER MAIN AND SANITARY SEWER.
   SANITARY MANHOLES SHALL BE CONSTRUCTED WITH STEPS.
7. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
8. PRIOR TO FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
10. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL BE A MINIMUM OF 18-GAUGE, INSULATED, SINGLE-CONDUCTOR COPPER WIRE OR EQUIVALENT. TRACER WIRE COLOR SHALL BE BLUE FOR POTABLE WATER, GREEN FOR SANITARY SEWER, AND BROWN FOR STORM SEWER.

WATER MAIN NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE. SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
3. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.
4. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
5. MATERIALS FOR WATER SERVICE SHALL BE AS FOLLOWS:
   WATER MAIN SHALL BE DUCTILE IRON AND BEDDED WITH TYPE 3 EMBEDMENT (SAND OR SAND SCREENINGS)

   WATER MAIN SHALL BE INSTALLED WITH TRACER WIRE. TRACER WIRE SHALL SURFACE AT ALL HYDRANTS IN A CONDUIT OR A TRACER WIRE ACCESS BOX.

   ALL MAINS SHALL BE A MINIMUM OF 8" IN DIAMETER WITH THE EXCEPTION OF HYDRANT LEADS THAT SHALL BE 6".

   WATER MAINS SHALL HAVE A MINIMUM COVER OF 6.5'.
   ALL WATER MAINS ARE REQUIRED TO BE LOOPED.

   MECHANICAL JOINT FITTINGS WITH MEGA-LUGS ARE REQUIRED FOR ALL DIRECTIONAL CHANGE FITTINGS AND WATER MAIN ENDS. ALL BOLTS SHALL BE STAINLESS STEEL. ALL FITTINGS SHALL BE "MADE IN AMERICA" CERTIFIED.

   CORPORATION STOPS SHALL BE MUELLER H15008.

   WATER VALVES SHALL BE AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE GATE VALVE.

   WATER MAINS SHALL BE A MINIMUM OF 4' OFF THE FLAG OF THE CURB.

   FIRE HYDRANTS SHALL BE LOCATED 3.5' BEHIND THE BACK OF CURB AND HYDRANT VALVES SHALL BE PLACED IN THE STREET.

   A FIRE HYDRANT WILL BE REQUIRED AT THE END OF ALL DEAD END LINES.

   FIRE HYDRANTS SHALL BE WATEROUS PACER WB67 WITH A STORZ NOZZLE.

   CURB BOXES SHALL BE BINGHAM AND TAYLOR BUFFALO TYPE AND INSTALLED WITH THE EXTENSION ROD AND GUIDE RING.

   CURB VALVES SHALL BE MUELLER H15209.

   CURB BOXES SHALL BE LOCATED 3.5' BEHIND THE BACK OF CURB.

   ALL LATERAL/WATER SERVICE ENDS SHALL BE MARKED WITH A TREATED 4" X 4" POST AND THE TOP OF THE POST SHALL BE PAINTED BLUE.

   EXCAVATED MATERIAL FROM THE TRENCH NOT SUITABLE FOR BACKFILL AS DEEMED BY THE PUBLIC SERVICES DIRECTOR SHALL BE HAULED OFF-SITE AND SELECT AND SELECT TRENCH BACKFILL WILL BE REQUIRED.

   PROVIDE A 2" THICK STYROFOAM INSULATION BETWEEN WATER MAIN AND ALL STORM SEWER CROSSINGS.

   WATER MAINS SHALL UNDERGO A PRESSURE AND LEAKAGE TEST. SERVICES SHALL BE TESTED TO THE CURB STOP. SERVICES OF 4" AND LARGER WITH JOINTED PIPE SHALL BE TESTED AGAINST THE VALVE WITH A SECOND TEST OUT TO THE PLUG. THE SECOND TEST MAY BE SHORTER DURATION AS APPROVED BY THE PUBLIC SERVICES DIRECTOR.

   A SIGN SHALL BE INSTALLED ADJACENT TO ANY VALVES LOCATED OUTSIDE OF THE RIGHT-OF-WAY WITH THE TEXT "WATER VALVE". SIGNS SHALL BE MOUNTED TO A TREATED 4'x4' WOOD POST.

   WATER SERVICES 4" OF DIAMETER OR GREATER SHALL HAVE VALVES LOCATED IN THE STREET.
6. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER AND WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.

STORM WATER DRAINAGE NOTES :

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. UNLESS OTHERWISE INDICATED, USE REINFORCED, PRECAST, CONCRETE MAINTENANCE HOLES AND CATCHBASINS CONFORMING TO ASTM C478, FURNISHED WITH WATER STOP RUBBER GASKETS AND PRECAST BASES. JOINTS FOR ALL PRECAST MAINTENANCE HOLE SECTIONS SHALL HAVE CONFINED, RUBBER "O"-RING GASKETS IN ACCORDANCE WITH ASTM C923. THE INSIDE BARREL DIAMETER SHALL NOT BE LESS THAN 48 INCHES.
3. ALL JOINTS AND CONNECTIONS TO CATCHBASINS OR MANHOLES SHALL BE WATERTIGHT. USE RESILIENT RUBBER SEALS, WATERSTOP GASKETS, OR APPROVED EQUAL. CEMENT MORTAR JOINTS ARE NOT ALLOWED.
4. INSTALL CATCHBASIN CASTINGS WITH SPECIFIED TOP ELEVATION AT THE FRONT RIM.
5. USE HDPE SOLID WALL PIPE WHEN CALLED OUT ON THE PLANS.
6. PVC PIPE: USE SOLID-CORE, SDR-35, ASTM D3034 POLYVINYL CHLORIDE (PVC) PIPE FOR DESIGNATED PVC STORM SEWER SERVICES 4 TO 15-INCHES IN DIAMETER. USE SOLID-CORE, SDR-35, ASTM F679 POLYVINYL CHLORIDE (PVC) PIPE FOR DESIGNATED PVC STORM SEWER SERVICES 18 TO 27-INCHES IN DIAMETER. JOINTS FOR ALL STORM SEWER SHALL HAVE PUSH-ON JOINTS WITH ELASTOMERIC GASKETS. USE OF SOLVENT CEMENT JOINTS IS ALLOWED FOR BUILDING SERVICES. SOLVENT CEMENT JOINTS IN PVC PIPE MUST INCLUDE USE OF A PRIMER WHICH IS OF CONTRASTING COLOR TO THE PIPE AND CEMENT. PIPE WITH SOLVENT CEMENT JOINTS SHALL BE JOINED WITH PVC CEMENT CONFORMING TO ASTM D2564. LAY ALL PVC PIPE ON A CONTINUOUS GRANULAR BED. INSTALLATION MUST COMPLY WITH ASTM D2321.
7. TESTING: TEST ALL PORTIONS OF STORM SEWER THAT ARE WITHIN 10 FEET OF BUILDINGS, WITHIN 10 FEET OF BURIED WATER, LINES, WITHIN 50 FEET OF WATER WELLS, OR THAT PASS THROUGH SOIL OR WATER IDENTIFIED AS BEING CONTAMINATED. TEST ALL FLEXIBLE STORM SEWER LINES FOR DEFLECTION AFTER THE SEWER LINE HAS BEEN INSTALLED AND BACKFILL HAS BEEN IN PLACE FOR AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE TEST FAILS, MAKE NECESSARY REPAIRS AND RETEST.
8. INSTALL DETECTABLE UNDERGROUND MARKING TAPE DIRECTLY ABOVE ALL PVC, POLYETHYLENE, AND OTHER NONCONDUCTIVE UNDERGROUND UTILITIES AT A DEPTH OF 457 MM (18 INCHES) BELOW FINISHED GRADE, UNLESS OTHERWISE INDICATED. BRING THE TAPE TO THE SURFACE AT VARIOUS LOCATIONS IN ORDER TO PROVIDE CONNECTION POINTS FOR LOCATING UNDERGROUND UTILITIES. INSTALL BLUE RHINO TRIVIEW FLEX TEST STATIONS, OR APPROVED EQUAL, WITH BLACK CAPS AT EACH SURFACE LOCATION.
9. TRACER WIRE: LOCATING REQUIREMENTS - A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES.
9. THE MINIMUM DEPTH OF COVER FOR BUILDING AND CANOPY ROOF DRAIN LEADERS WITHOUT INSULATION IS 5 FEET. INSULATE ROOF DRAIN LEADERS AT LOCATIONS WHERE THE DEPTH OF COVER IS LESS THAN 5 FEET. PROVIDE A MINIMUM INSULATION THICKNESS OF 2 INCHES. THE INSULATION MUST BE AT LEAST 4 FEET WIDE AND CENTERED ON THE PIPE. INSTALL THE INSULATION BOARDS 6 INCHES ABOVE THE TOPS OF THE PIPES ON MECHANICALLY COMPACTED AND LEVELED PIPE BEDDING MATERIAL. USE HIGH DENSITY, CLOSED CELL, RIGID BOARD MATERIAL EQUIVALENT TO DOW STYROFOAM HI-40 PLASTIC FOAM INSULATION.
10. CLEANOUTS: INSTALL CLEANOUTS ON ALL ROOF DRAINS IN ACCORDANCE WITH S.P.S 382.35 (3)(C)(1.). THE DISTANCE BETWEEN CLEANOUTS IN HORIZONTAL PIPING SHALL NOT EXCEED 100 FEET FOR PIPES 10-INCHES AND UNDER IN SIZE. CLEANOUTS SHALL BE OF THE SAME NOMINAL SIZE AS THE PIPES THEY SERVE. INSTALL A METER BOX FRAME AND SOLID LID (NEENAH R-1914-A, OR APPROVED EQUAL) OVER ALL CLEANOUTS.
11. INSTALL ALL PIPE WITH THE ASTM IDENTIFICATION NUMBERS ON THE TOP FOR INSPECTION. COMMENCE PIPE LAYING AT THE LOWEST POINT IN THE PROPOSED SEWER LINE. LAY THE PIPE WITH THE BELL END OR RECEIVING GROOVE END OF THE PIPE POINTING UPGRADE. WHEN CONNECTING TO AN EXISTING PIPE, UNCOVER THE EXISTING PIPE IN ORDER TO ALLOW ANY ADJUSTMENTS IN THE PROPOSED LINE AND GRADE BEFORE LAYING ANY PIPE. DO NOT LAY PIPES IN WATER OR WHEN THE TRENCH CONDITIONS ARE UNSUITABLE FOR SUCH WORK.

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

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ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

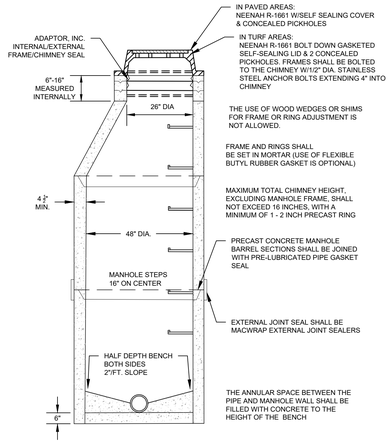
KEY PLAN

SHEET INFORMATION

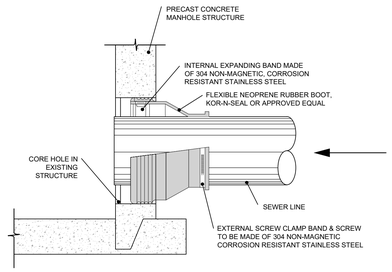
PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

UTILITY NOTES

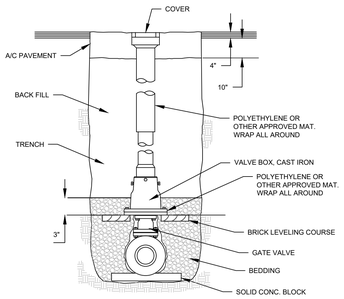
C 500



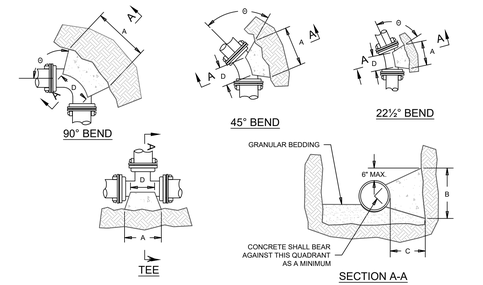
1 / C 501 SANITARY MANHOLE DETAIL
NOT TO SCALE



4 / C 501 BOOT CONNECTION DETAIL
NOT TO SCALE



7 / C 501 WATER VALVE BOX DETAIL
NOT TO SCALE



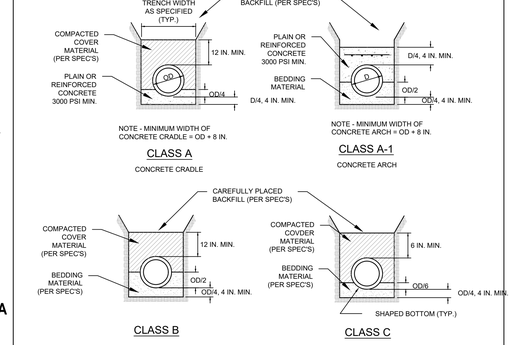
NOTES:
1. WOOD BLOCKING MAY NOT BE USED. ONLY SOLID CONCRETE BLOCKS ARE ALLOWED.
2. DIMENSION "D" SHALL BE AS LARGE AS POSSIBLE, BUT THE CONCRETE SHALL NOT INTERFERE WITH THE MECHANICAL JOINTS.
3. DIMENSION "C" SHALL BE AT LEAST 6 INCHES, AND LARGE ENOUGH TO MAKE THE "B" ANGLE EQUAL TO OR GREATER THAN 45 DEGREES WITH THE DIMENSION "A" AS SHOWN ON THE TABLE, OR GREATER, AND WITH DIMENSION "D" AS LARGE AS POSSIBLE.
4. CONCRETE SHALL BE CLASS "CC".
5. ALL BUTTRESSED JOINTS SHALL INCLUDE MEGALUGS AND CONCRETE BUTTRESSING.

PIPE SIZE	BUTTRESS DIMENSIONS							
	TEES *		22.5° BEND		45° BEND		90° BEND	
	A	B	A	B	A	B	A	B
6	1'-3"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8	1'-6"	1'-4"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10/12	2'-3"	2'-0"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
14/16	3'-2"	2'-6"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
18/20	4'-0"	3'-0"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
22/24	5'-3"	3'-4"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30	6'-3"	4'-3"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

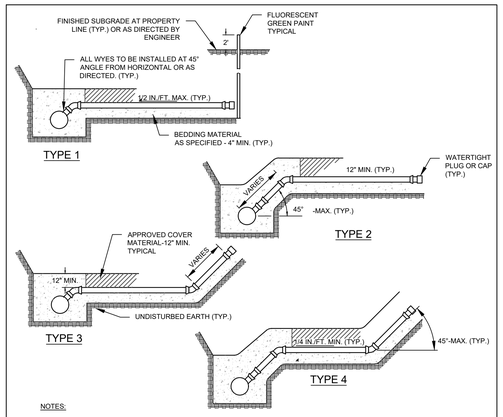
DIMENSIONS IN THE TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND SOIL RESISTANCE OF 2000 LBS./SQ.FT.

* = FOR TEE THIS WILL BE THE BRANCH PIPE

10 / C 501 BUTRESS DETAIL
NOT TO SCALE

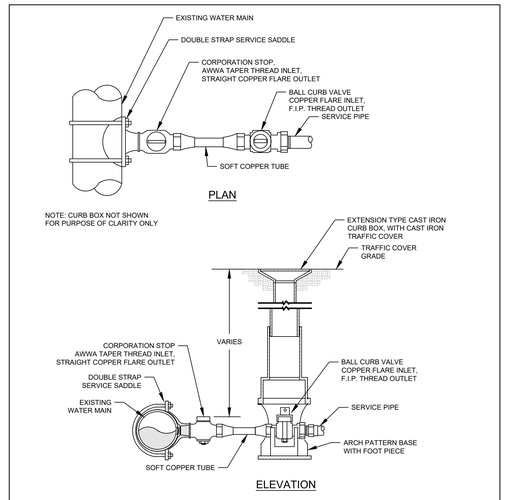


2 / C 501 SANITARY SEWER CLEANOUT
NOT TO SCALE

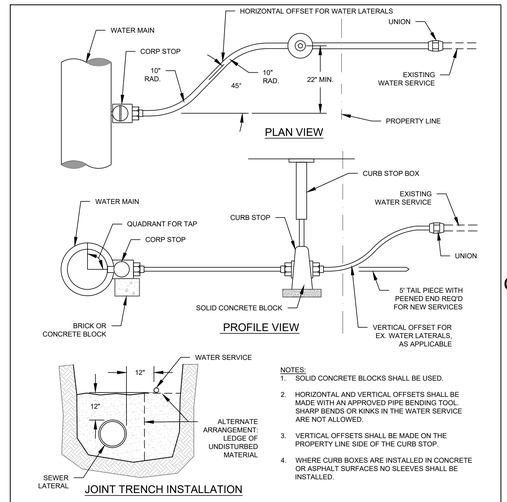


NOTES:
1. BEDDING MATERIAL SHALL BE 3/4" CLEAR STONE, UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
2. ENDS OF ALL LATERALS TO BE 10 FT. MIN. COVER AT END, AND BE MARKED BOTH BELOW AND ABOVE SURFACE WITH 4" LONG 2" x 4".
3. ALL NEW CONSTRUCTION TO BE PLACED ON UNDISTURBED GROUND OR SAND COMPACTED TO 95% MAXIMUM DENSITY.
4. LATERAL MATERIAL INCLUDING FITTINGS SHALL BE OF SAME MATERIAL AS THE SEWER MAIN, OR AS DIRECTED BY ENGINEER.
5. THE PIPE MUST EXTEND AT LEAST 5' LATERALLY BEYOND THE PROPERTY LINE

5 / C 501 SEWER LATERAL DETAIL
NOT TO SCALE



8 / C 501 WATER MAIN CONNECTION DETAIL
NOT TO SCALE

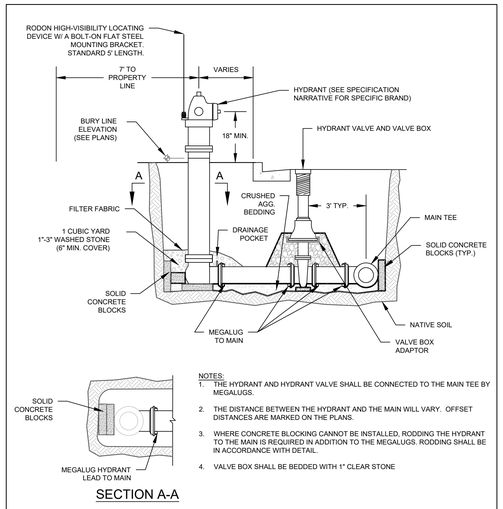


NOTES:
1. SOLID CONCRETE BLOCKS SHALL BE USED.
2. HORIZONTAL AND VERTICAL OFFSETS SHALL BE MADE WITH AN APPROVED PIPE BENDING TOOL. SHARP BENDS OR KINKS IN THE WATER SERVICE ARE NOT ALLOWED.
3. VERTICAL OFFSETS SHALL BE MADE ON THE PROPERTY LINE SIDE OF THE CURB STOP.
4. WHERE CURB BOXES ARE INSTALLED IN CONCRETE OR ASPHALT SURFACES NO SLEEVES SHALL BE INSTALLED.

11 / C 501 WATER SERVICE INSTALLATION DETAIL
NOT TO SCALE

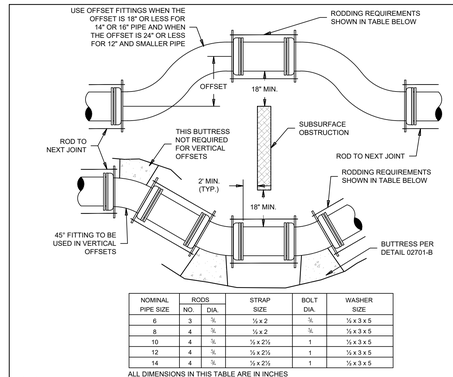
NOTES:
1. ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS "B" MIN., OR AS CALLED FOR IN THE SPECIAL PROVISIONS.
2. ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

3 / C 501 SANITARY SEWER BEDDING DETAIL
NOT TO SCALE



NOTES:
1. THE HYDRANT AND HYDRANT VALVE SHALL BE CONNECTED TO THE MAIN TEE BY MEGALUGS.
2. THE DISTANCE BETWEEN THE HYDRANT AND THE MAIN WILL VARY. OFFSET DISTANCES ARE MARKED ON THE PLANS.
3. WHERE CONCRETE BLOCKING CANNOT BE INSTALLED, RODDING THE HYDRANT TO THE MAIN IS REQUIRED IN ADDITION TO THE MEGALUGS. RODDING SHALL BE IN ACCORDANCE WITH DETAIL.
4. VALVE BOX SHALL BE BEDDED WITH 1" CLEAR STONE

6 / C 501 STANDARD HYDRANT DETAIL
NOT TO SCALE



NOMINAL PIPE SIZE	RODS NO.	RODS DIA.	STRAP SIZE	BOLT DIA.	WASHER SIZE
6	3	⅝	⅛ x 2	¾	⅛ x 3 x 5
8	4	⅝	¼ x 2	¾	⅛ x 3 x 5
10	4	⅞	⅛ x 2½	1	⅛ x 3 x 5
12	4	⅞	⅛ x 2½	1	⅛ x 3 x 5
14	4	⅞	⅛ x 2½	1	⅛ x 3 x 5

ALL DIMENSIONS IN THIS TABLE ARE IN INCHES

NOTES:
1. ALL OFFSETS SHALL BE RESTRAINED WITH MEGALUGS. WHERE CONCRETE BUTTRESSING CANNOT BE USED, RODDING MUST BE USED IN ADDITION TO THE MEGALUGS.
2. RODS AND WASHERS TO BE ASTM A-575 MERCHANT QUALITY 0.17-0.24 CARBON. NUTS TO BE AMERICAN STANDARD HEAVY, NOT PRESSED.
3. TIE RODS, BOLTS, NUTS, BANDS AND WASHERS TO BE FURNISHED AND ASSEMBLED BY THE CONTRACTOR.
4. ALL STEEL MATERIAL TO BE GALVANIZED OR BE THOROUGHLY COATED WITH ENGINEER APPROVED COATING.
5. OFFSET FITTINGS REQUIRE CONTINUOUS RODDING IN ALL POSITIONS.
6. VERTICAL OFFSETS SHALL NOT CREATE A HIGH POINT IN THE WATER MAIN. VERTICAL OFFSETS REQUIRE THE SAME RODDING AND BUTTRESSING AS SHOWN ABOVE.

9 / C 501 OFFSET & RODDING DETAIL
NOT TO SCALE

12 / C 501 NOT USED
NOT TO SCALE

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

SHEET INFORMATION

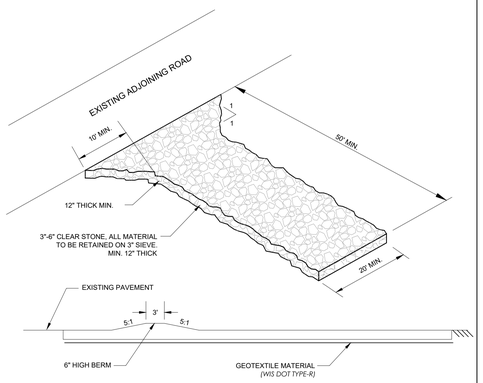
PROJECT MANAGER SJA

PROJECT NUMBER 120.0311.30

UTILITY DETAILS

C 501

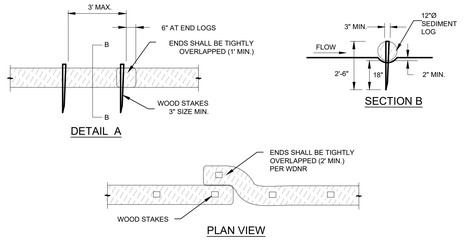
V:\Projects\2020\120.0311.30\CAD\D120.0311.30 P500.dwg ALEXANDER KEEFE, UTILITY DETAILS, 2023/03/13, 2:48 PM, ARCH FULL BLEED E1 (30.00 X 42.00 INCHES)



NOTE: MAINTAIN THE ROCK ENTRANCE TO PREVENT TRACKING ONTO PAVEMENT

1 / C 502 CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



SEDIMENT LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR THE LOCATION AND LENGTH OF SEDIMENT LOG.
2. SEDIMENT LOG INDICATED ON INITIAL PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT LOG SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF ½ OF THE DIAMETER OF THE SEDIMENT LOG.
6. SEDIMENT LOG SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS 1071

SEDIMENT LOG MAINTENANCE NOTES

1. THE CONTRACTOR SHALL INSPECT SEDIMENT LOGS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF THE SEDIMENT LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST OF LOG.
3. SEDIMENT LOGS SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

4 / C 502 SEDIMENT LOG DETAIL

NOT TO SCALE

6 / C 502 NOT USED

NOT TO SCALE

EROSION CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS, INCLUDING WISDNR WPDES DISCHARGE PERMIT (IF APPLICABLE), COUNTY AND LOCAL EROSION CONTROL PERMIT. CONTRACTOR IS RESPONSIBLE FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
2. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES.
3. ALL INSTALLATION AND MAINTENANCE OF EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARD, FOUND AT: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html OR THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK IF A TECHNICAL STANDARD IS NOT AVAILABLE.
4. ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH ALL APPLICABLE PERMITS ISSUED FOR THE PROJECT.
5. ALL EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. REPAIRS SHALL BE MADE IMMEDIATELY TO EROSION CONTROL PRACTICES AS NECESSARY.
6. TEMPORARY STOCKPILES SHALL BE STABILIZED IF NOT REMOVED IN 10 DAYS. PERIMETER CONTROL ON THE DOWNHILL SIDE SHALL BE IN PLACE AT ALL TIMES (SILT FENCE OR APPROVED EQUAL).
7. TEMPORARY SEED MIXTURE SHALL CONFORM TO 630.2.1.5.1.4 OF THE WISDOT STANDARD SPECIFICATIONS USE WINTER WHEAT OR RYE FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 1.
8. DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM) IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1050.
9. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS TO MAINTAIN A THREE FOOT DEPTH OF TREATMENT, MEASURED BELOW THE NORMAL WATER ELEVATION. SEDIMENT WILL BE REMOVED FROM THE DIVERSION DITCHES WHEN IT REACHES HALF THE HEIGHT OF THE DITCH. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE AND DITCH CHECKS WHEN IT REACHES HALF THE HEIGHT OF THE FENCE/BALE THE SILT FENCE AND DITCH CHECKS SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
10. ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061 PRIOR TO DISCHARGE TO WATERS OF THE STATE, WETLANDS, OR OFFSITE.
11. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING ON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL TEMPORARY EROSION CONTROL AND/OR SEDIMENT TRAPS IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT. TEMPORARY SEDIMENT TRAPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1063.
12. TRACKED MATERIAL TO ADJACENT STREETS SHALL BE COLLECTED AT THE END OF EACH WORKING DAY OR AS REQUIRED BY THE LOCAL MUNICIPALITY.
13. DUST CONTROL SHALL BE PROVIDED AS NECESSARY IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 106B.
14. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
15. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE APPROVED LANDSCAPE PLAN TO MAINTAIN A VIGOROUS DENSE VEGETATIVE COVER.
16. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EROSION CONTROL FACILITIES AND MEASURES NECESSARY TO CONTROL EROSION AND SEDIMENTATION AT THE PROJECT SITE. THESE FACILITIES AND MEASURES MAY OR MAY NOT BE SHOWN ON THE DRAWINGS AND THEIR ABSENCE ON THE DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING THEM. ANY MEASURES AND FACILITIES SHOWN ON THE DRAWINGS ARE THE MINIMUM ACTIONS REQUIRED.
17. ERODED MATERIAL THAT HAS LEFT THE CONSTRUCTION SITE SHALL BE COLLECTED AND RETURNED TO THE SITE BY THE CONTRACTOR.
18. AFTER FINAL VEGETATION IS ESTABLISHED, REMOVE ALL EROSION CONTROL FACILITIES. RESTORE AREAS DISTURBED BY THE REMOVALS.
19. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
20. COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE. CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNR TECHNICAL STANDARDS.
21. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
22. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.

eppstein uhen : architects

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33 BOYLSTON ST, STE 3000
CHESTNUT HILL, MA 02467
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SNYDER & ASSOCIATES
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MADISON, WISCONSIN 53718
608-838-0444

PROJECT INFORMATION

HILLDALE SHOPPING CENTER

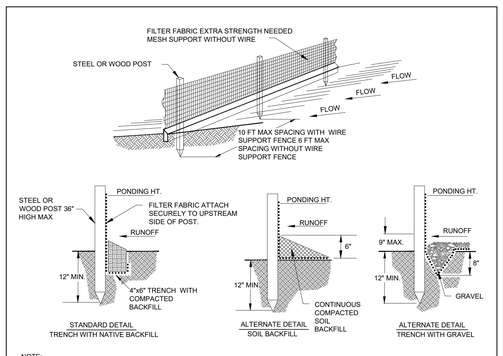
HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN



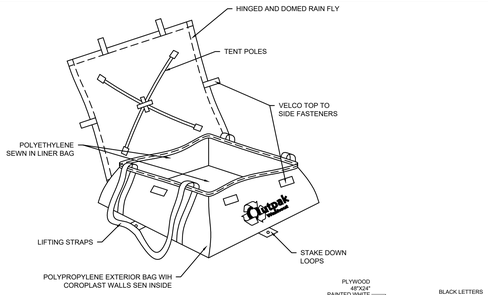
NOTE:

1. INSPECT FENCE WEEKLY AND AFTER EACH RAIN EVENT OF 0.5" AND REPAIR IF REQUIRED. REMOVE SEDIMENT WHEN NECESSARY OR WHEN SEDIMENT REACHES ½ OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. SILT FENCE SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1056.

ROLL JOINTS

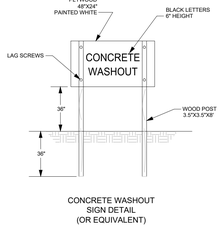
2 / C 502 SILT FENCE DETAIL

NOT TO SCALE



NOTES:

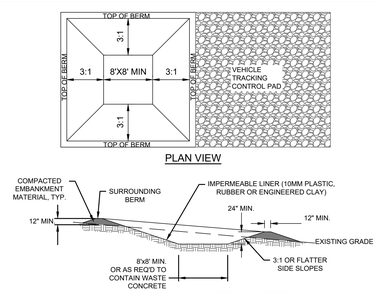
1. THE CONCRETE WASHOUT SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THIS PROJECT.
2. AS NECESSARY, SIGNS SHALL BE PLACED THROUGHOUT THE SITE TO INDICATE THE LOCATION OF THE CONCRETE WASHOUT.
3. THE CONCRETE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR LIQUID WASTE.
4. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE FACILITY.
5. DO NOT WASHOUT INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
6. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
7. THE WASHOUT SHALL BE USED ONLY FOR NON-HAZARDOUS WASTES.
8. CONTRACTOR MAY USE AN ALTERNATIVE MEATHOD OF CONCRETE WASHOUT WITH THE PROJECT ENGINEERS APPROVAL.



CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

5 / C 502 CONCRETE WASHOUT DETAILS

NOT TO SCALE



TYPICAL SECTION

CONCRETE WASHOUT AREA INSTALLATION NOTES

1. SEE EROSION CONTROL PLAN FOR LOCATIONS OF CONCRETE WASHOUT AREA(S). TO BE PLACED A MIN. OF 50' FROM DRAINAGEWAYS, BODIES OF WATER, AND INLETS.)
2. THE CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL PAD IS REQ'D AT THE ACCESS POINT(S).
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA(S), AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREAS TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

CONCRETE WASHOUT AREA MAINTENANCE NOTES

6. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE
7. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
8. WHEN CONCRETE WASHOUT AREA(S) IS REMOVED, THE DISTURBED AREA SHALL BE STABILIZED PER SITE EROSION CONTROL MEASURES.
9. INSPECT WEEKLY AND DURING AND AFTER ALL STORM EVENTS. CLEAN-OUT OR COVER WASHOUT AREA PRIOR TO PREDICTED STORM EVENTS TO PREVENT OVER-FLOW.

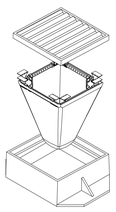
*FLOW RATINGS SHOWN ARE 50% MAXIMIUM

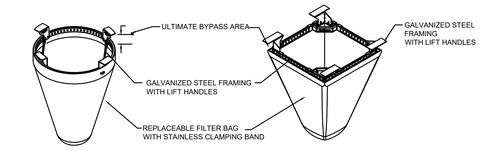
NOTES:

1. ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL FRAMING FOR PROLONGED PRODUCT LIFE.
2. TOTAL BYPASS CAPACITY WILL VARY WITH EACH SIZED DRAINAGE STRUCTURE. FLEXSTORM DESIGNS FRAMING BYPASS TO MEET OR EXCEED THE DESIGN FLOW OF THE PARTICULAR DRAINAGE STRUCTURE. CONCRETE STRUCUTRES MAY REQUIRE ADDITIONAL REVIEW.
3. UPON ORDERING THE ADS P/N CONFIRMATION OF THE DOT CALLOUT, FLEXSTORM ITEM CODE, CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED.
4. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

INSTALLATION:

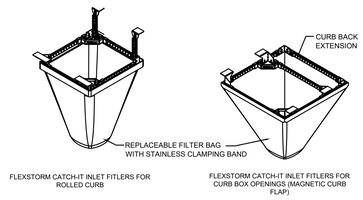
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE





FLEXSTORM CATCH-IT INLET FILTERS FOR ROUND OPENINGS

FLEXSTORM CATCH-IT INLET FITLERS FOR SQUARE/RECTANGULAR OPENINGS



FLEXSTORM CATCH-IT INLET FITLERS FOR ROLLED CURB

FLEXSTORM CATCH-IT INLET FITLERS FOR CURB BOX OPENINGS (MAGNETIC CURB FLAP)

Product selection for FLEXSTORM CATCH-IT Filters (Temporary Inlet Protection)

Neenah Casting	Inlet Type	Grate Size	Opening Size	Bag Cap (ft^2)	Flow Ratings (CFS)		ADS P/N
					FX	Bypass	
1040/1642/1733	Round	26	24	1.9	1.5	5.4	62MRDFX
3067 w/FLAP	Curb Box	35.25 x 17.75	33.0 x 15.0	3.8	1.9	5.6	62LCBEXTFX
3067 EXTENDED BACK	Curb Box	35.25 x 17.75	33.0 x 15.0	4.4	2.3	5.8	62LCBEXTFX
3246A	Curb Box	35.75 x 23.875	33.5 x 21.0	4.2	2.2	3.3	62LCBFX
3030	Square/Rect (SQ)	23 x 16	20.5 x 13.5	1.6	1.4	2.2	62MCBFX
3067-C	Square/Rect (SQ)	35.25 x 17.75	33 x 15	3.2	2.0	5.2	62LSQFX

3 / C 502 INLET PROTECTION DETAIL

NOT TO SCALE

7 / C 502 NOT USED

NOT TO SCALE

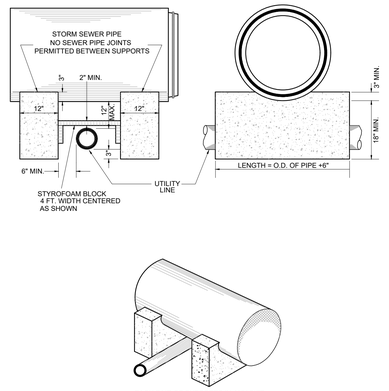
SHEET INFORMATION

PROJECT MANAGER SJA

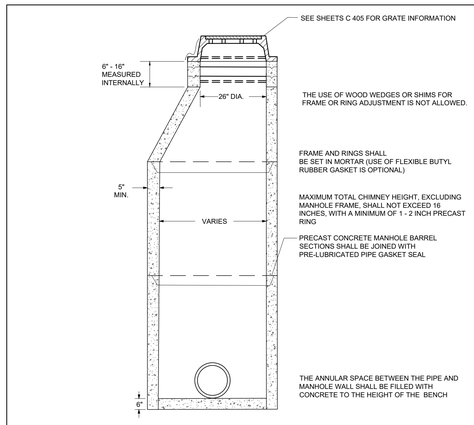
PROJECT NUMBER 120.0311.30

EROSION CONTROL NOTES & DETAILS

C 502



1 C 503 CONCRETE PIPE SUPPORT DETAIL
NOT TO SCALE

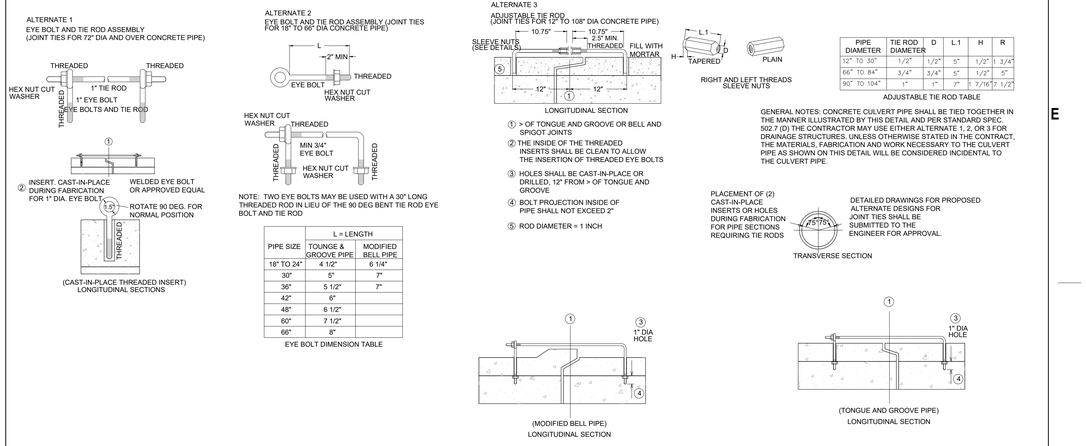


NOTES

1. FOR STRUCTURES LESS THAN 5.0' DEEP A PRECAST REINFORCED CONCRETE FLATTOP IS REQUIRED.

WALL THICKNESS SHALL BE 5" FOR 48" MANHOLE AND 6" FOR 60" MANHOLE.

4 C 503 STORM SEWER MANHOLE DETAIL
NOT TO SCALE



PIPE SIZE	L = LENGTH TOUNGE & GROOVE PIPE	L = LENGTH MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

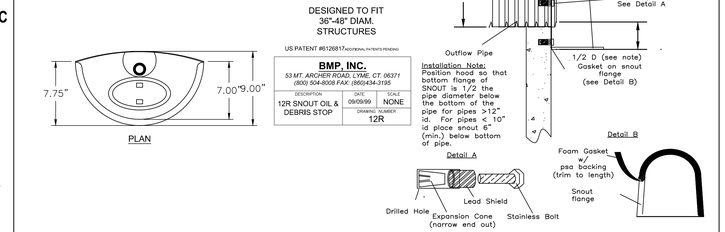
EYE BOLT DIMENSION TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L.1	H	R
12" TO 30"	1"/2"	1"/2"	5"	1/2"	1 3/4"
66" TO 84"	3/4"	3/4"	5"	1/2"	5"
90" TO 104"	1"	1"	7"	7 7/16"	7 1/2"

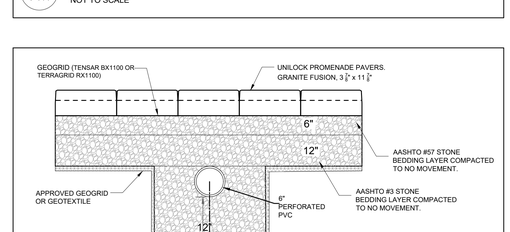
ADJUSTABLE TIE ROD TABLE

GENERAL NOTES: CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AND PER STANDARD SPEC. 502.7 (D) THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2, OR 3 FOR DRAINAGE STRUCTURES. UNLESS OTHERWISE STATED IN THE CONTRACT, THE MATERIALS, FABRICATION AND WORK NECESSARY TO THE CULVERT PIPE AS SHOWN ON THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE CULVERT PIPE.

6 C 503 CONCRETE PIPE JOINTING DETAILS
NOT TO SCALE



2 C 503 SNOUT OIL & DEBRIS STOP
NOT TO SCALE

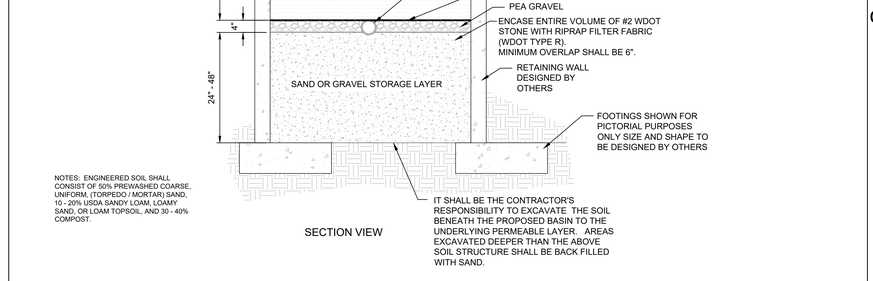


4 C 503 BIO-RETENTION OUTLET STRUCTURE
NOT TO SCALE

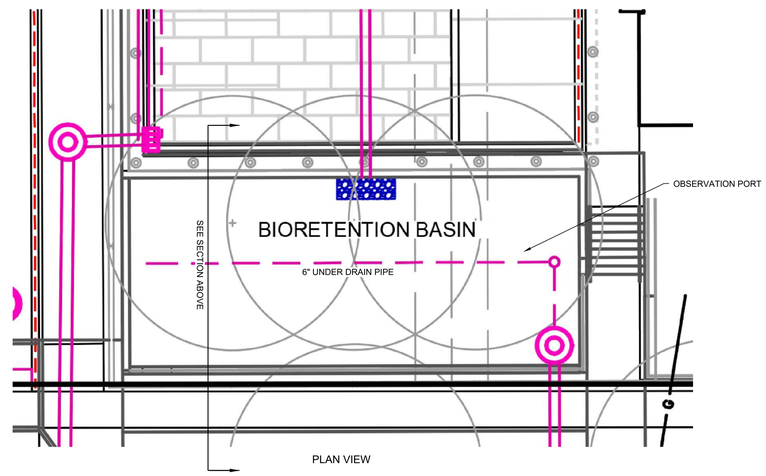
NOTES:

1. PAVEMENT SURFACE PERCENT VOIDS SHALL BE LESS THAN 25%.
2. PAVER BEDDING COURSE SHALL CONSIST OF 6" of AASHTO #57 AND 12" OF ASSHTO #3 AGGREGATE BASE COURSES.
3. AGGREGATE STORAGE RESERVOIR DEPTH SHALL BE A MINIMUM OF 18 INCHES.
4. IF UNDERCUT IS NEEDED UNDER THE PAVE DRAIN SECTION, ADDITIONAL AGGREGATE OF THE SAME TYPE WILL BE USED.

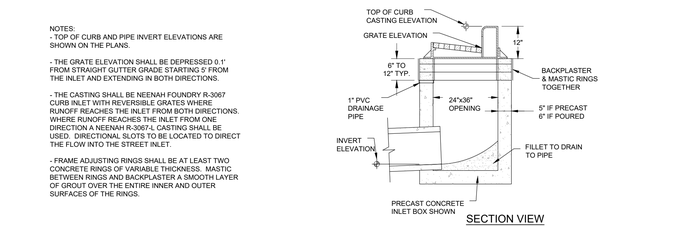
5 C 503 PERMEABLE PAVERS DETAIL
NOT TO SCALE



NOTES: ENGINEERED SOIL SHALL CONSIST OF 50% PREWASHED COARSE, UNIFORM, (TORPEDO / MORTAR) SAND, 10 - 20% USDA SANDY LOAM, LOAMY SAND, OR LOAM TOPSOIL, AND 30 - 40% COMPOST.



7 C 503 BIORETENTION DETAIL
NOT TO SCALE



3 C 503 CURB INLET DETAIL
NOT TO SCALE

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PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

STORM WATER DETAILS

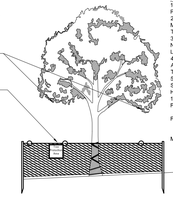
C 503

TREE PROTECTION AREA
THE AREA INSIDE A PERIMETER ESTABLISHED AT THE CRITICAL ROOT ZONE (CRZ). THE CRZ IS EQUAL TO THE DRIPLINE, FURTHEST EXTENT OF TREE CANOPY, OR 6I EQUAL TO ONE FOOT RADIALLY FROM THE TREE FOR EVERY ONE INCH OF TRUNK DIAMETER AT BREAST HEIGHT (DBH = 4.5' ABOVE SOIL LINE), OR WHICHEVER IS GREATER.

ZONE 2
LOWER CANOPY PROTECTION
CONTACT LANDSCAPE ARCHITECT IF ANY PRUNING IS NEEDED PRIOR TO WORK IF POTENTIAL FOR DAMAGE EXISTS.

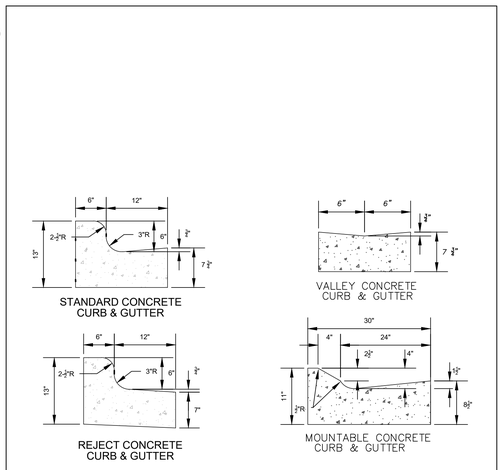
ZONE 1
DENOTES PERIMETER OF TREE PROTECTION AREA. THE FOLLOWING MUST BE AUTHORIZED BY A REGISTERED LANDSCAPE ARCHITECT PRIOR TO WORK COMMENCEMENT: ANY DIGGING, EXCAVATING, TRENCHING, CHANGING OF GRADE, OR OTHER ACTIONS THAT MAY POTENTIALLY IMPACT THE ROOTING ENVIRONMENT. WORK WITHIN THE CRZ MUST TAKE PLACE IN ACCORDANCE WITH THE CONDITIONS ESTABLISHED BY THE LANDSCAPE ARCHITECT.

ZONE 3
REQUIRED IF CONSTRUCTION OCCURS WITHIN TEN FEET OR LESS (PERMITTED INSIDE THE CRZ ONLY IF EQUIPMENT IS OPERATED EXCLUSIVELY ON EXISTING HARDSCAPE AND NO SOIL COMPACTION TAKES PLACE).



NOTES:
1. DAMAGE TO PROTECTED TREES IS SUBJECT TO PENALTY.
2. THE TREE PROTECTION AREA SHALL NOT BE MODIFIED OR REMOVED PRIOR TO CONSENT OF THE LANDSCAPE ARCHITECT.
3. ENTRANCE TO THE TREE PROTECTION AREA IS NOT PERMITTED WITHOUT CONSENT OF THE LANDSCAPE ARCHITECT.
4. MATERIALS, DEBRIS, EQUIPMENT, AND SITE AMENITIES SHALL NOT BE STORED WITHIN THE TREE PROTECTION AREA.
5. ZONE ONE TREE PROTECTION AREA FENCING SHALL BE "ORANGE SAFETY FENCING," MIN. 48" IN HEIGHT, TOP SECURED TO METAL T-POSTS WITH 14-GAUGE WIRE WOVEN THROUGH TOP OF FENCING FOR ENTIRE LENGTH.
   - T-POSTS SHALL BE PLACED SO THAT WIRE & FENCE ARE TAUT.
   - CHAIN LINK FENCING IS ALSO ACCEPTABLE.
   - "TREE PROTECTION AREA" SIGNS SHALL BE MAINTAINED IN THE CONDITION.

1 / C 504 — TREE PRESERVATION
NOT TO SCALE

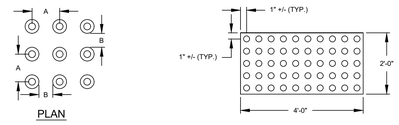


NOTES:

LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER.

THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

2 / C 504 — CURB & GUTTER DETAILS
NOT TO SCALE



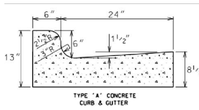
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF YELLOW TRUNCATED DOMES PER THE D DIMENSION.

4 / C 504 — TRUNCATED DOME DETAIL
NOT TO SCALE

5 / C 504 — NOT USED
NOT TO SCALE

6 / C 504 — CITY OF MADISON PUBLIC CURB
NOT TO SCALE



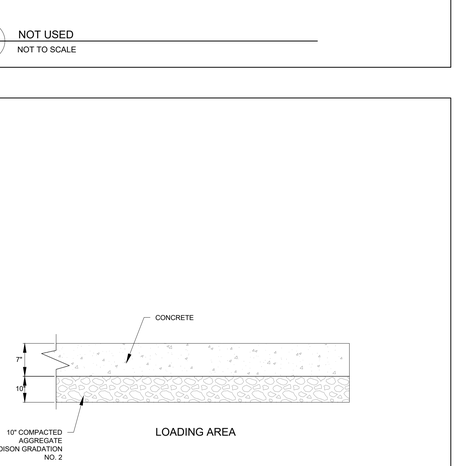
GENERAL NOTES:

LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH

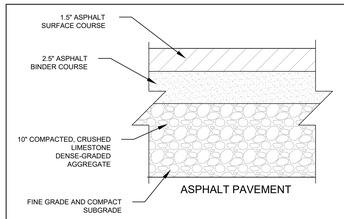
EXPANSION JOINTS SHALL BE PLACED TRANSVERSLY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE ½" THICK.

IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE

7 / C 504 — NOT USED
NOT TO SCALE



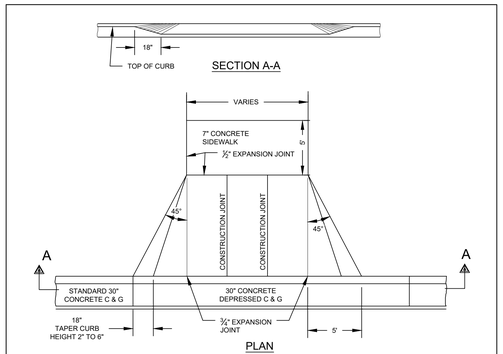
8 / C 504 — LOADING AREA DETAIL
NOT TO SCALE



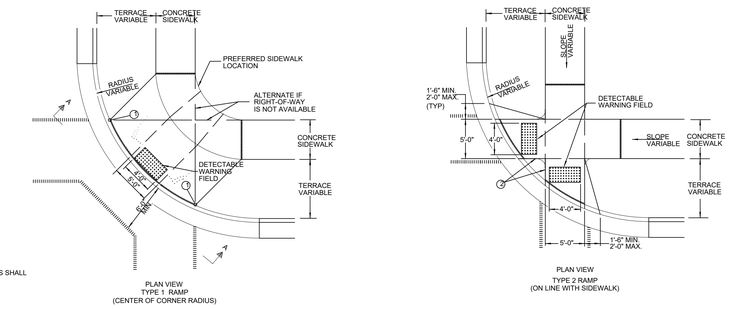
NOTES:

1. PAVEMENT SURFACE PERCENT VOIDS SHALL BE LESS THAN 25%.
2. JOINT STONE AND BEDDING COURSE SHALL CONSIST OF ASTM C-38, 8, 9, 89, OR 57 AGGREGATE.
3. AGGREGATE STORAGE RESERVOIR DEPTH SHALL BE A MINIMUM OF 12 INCHES.
4. BASE AND / OR SUBBASE COURSES WITH MINIMUM POROSITY OF 30% CAN BE CONSIDERED AGGREGATE STORAGE RESERVOIR. BASE COURSE FOR PERMEABLE INTERLOCKING PAVERS SHALL BE 4" IN DEPTH OF ASTM C-33, 57 AGGREGATE AND CAN BE CONSIDERED PART OF THE AGGREGATE STORAGE DEPTH.
5. UNDERDRAINS CAN BE LOCATED WITHIN OR BELOW THE AGGREGATE STORAGE RESERVOIR. UNDERDRAINS (OR EQUIVALENT) ARE REQUIRED IF THE AGGREGATE STORAGE RESERVOIR DRAIN DRAW DOWN TIME WILL EXCEED 72 HOURS.

10 / C 504 — PAVEMENT TYPE DETAILS
NOT TO SCALE



3 / C 504 — STANDARD DRIVEWAY DETAIL
NOT TO SCALE



LEGEND

- 1" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING, WHITE, 6-INCH
- ALTERNATIVE LAYOUT

① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

NOTE:
MATERIALS AND METHOD OF CONSTRUCTION FOR TRUNCATED DOMES SHALL BE SPECIFIED IN SPECIAL PROVISIONS OR AS REQUIRED BY THE CITY ENGINEER

GENERAL NOTES

TYPE 2-A RAMPS SHALL BE USED IN NEW DEVELOPMENTS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

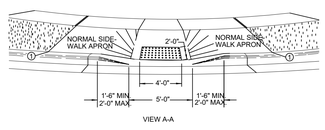
RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD".

CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES SHALL BE APPROVED BY THE CITY ENGINEER. THE COLOR OF THE DETECTABLE WARNING FIELD SHALL BE SAFETY YELLOW OR APPROVED EQUAL AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE.



9 / C 504 — SIDEWALK RAMP DETAILS
NOT TO SCALE

eppstein uhen : architects
milwaukee 333 East Chicago Street Milwaukee, Wisconsin 53202 telephone 414.271.5350
madison 309 West Johnson Street, Suite 202 Madison, Wisconsin 53703 telephone 608.442.5350

WS DEVELOPMENT
33 BOYLSTON ST., STE 3000
CHESTNUT HILL, MA 02467
P 617.232.8900

SNYDER & ASSOCIATES
5010 VOGES ROAD
MADISON, WISCONSIN 53718
608-838-0444

PROJECT INFORMATION

HILLDALE SHOPPING CENTER

HILLDALE

702 N Midvale Blvd
Madison, WI 53705

ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
	3/13/2023	CITY SUBMITTAL

KEY PLAN

SHEET INFORMATION

PROJECT MANAGER	SJA
PROJECT NUMBER	120.0311.30

SITE DETAILS

C 504

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

BUILDING 300

MADISON, WI

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

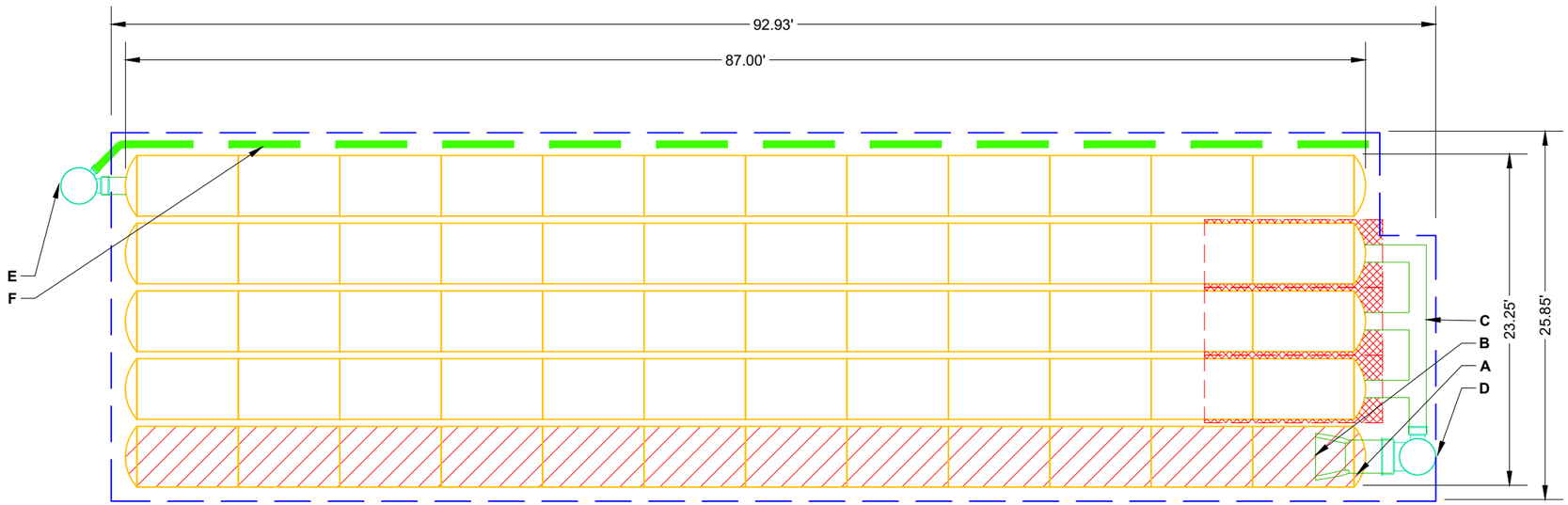
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
60	STORMTECH SC-740 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	904.70
10	STORMTECH SC-740 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	898.70
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	898.20
12	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	898.20
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	898.20
5927	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	897.70
		TOP OF SC-740 CHAMBER:	896.70
		12" x 12" TOP MANIFOLD INVERT:	895.24
		12" BOTTOM CONNECTION INVERT:	894.30
2374	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	894.21
237.6	SYSTEM PERIMETER (ft)	BOTTOM OF SC-740 CHAMBER:	894.20
		UNDERDRAIN INVERT:	893.20
		BOTTOM OF STONE:	893.20

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED EZ END CAP	A	24" BOTTOM PREFABRICATED EZ END CAP, PART#: SC740ECEZ / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	0.10"	
FLAMP	B	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: SC74024RAMP		
MANIFOLD	C	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
NYLOPLAST (INLET W/ ISO PLUS ROW)	D	30" DIAMETER (24.00" SUMP MIN)		5.7 CFS IN
NYLOPLAST (OUTLET)	E	30" DIAMETER (DESIGN BY ENGINEER)		2.0 CFS OUT
UNDERDRAIN	F	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 12.50' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

BUILDING 300
MADISON, WI
DATE:
DRAWN: LO
PROJECT #:
CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

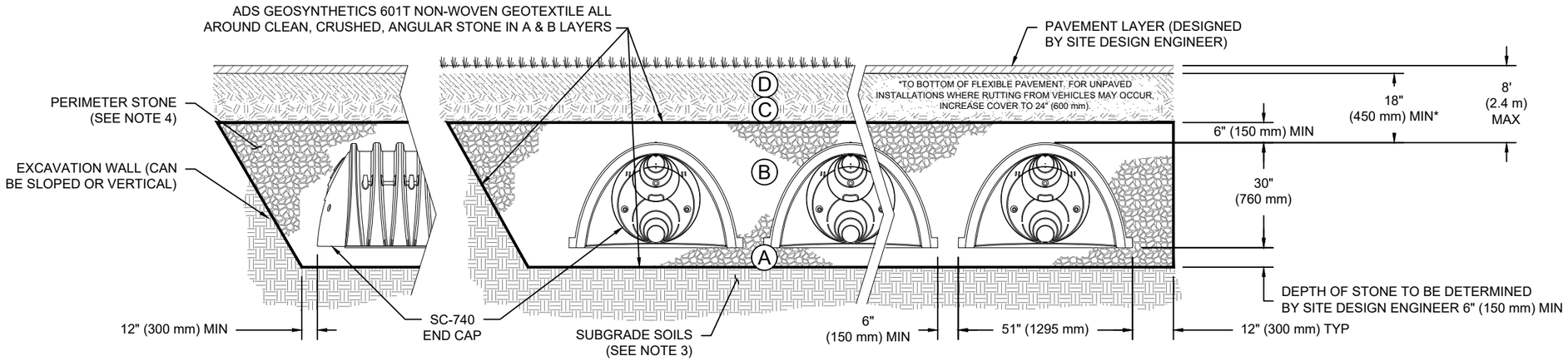
0 10' 20'

StormTech®
Chamber System
888-892-2694 | WWW.STORMTECH.COM

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

BUILDING 300
MADISON, WI
DRAWN: LO
CHECKED: N/A
DATE:
PROJECT #:

DATE	DRW	CHK	DESCRIPTION

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
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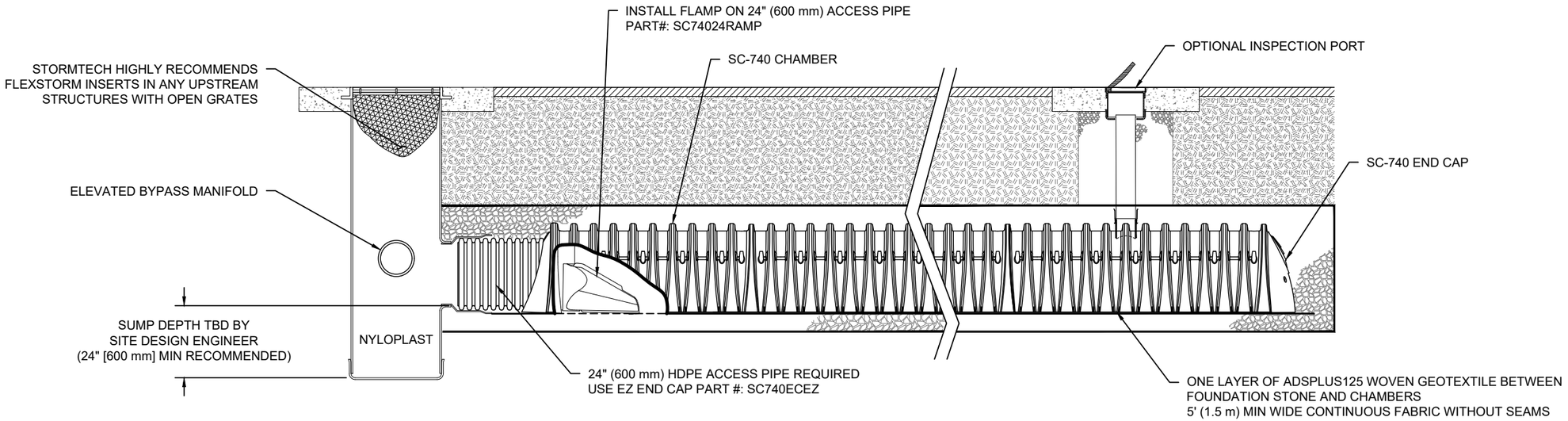

SC-740 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

BUILDING 300
MADISON, WI
DATE:
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PROJECT #:
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DATE	DRW	CHK	DESCRIPTION

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UNDERDRAIN DETAIL

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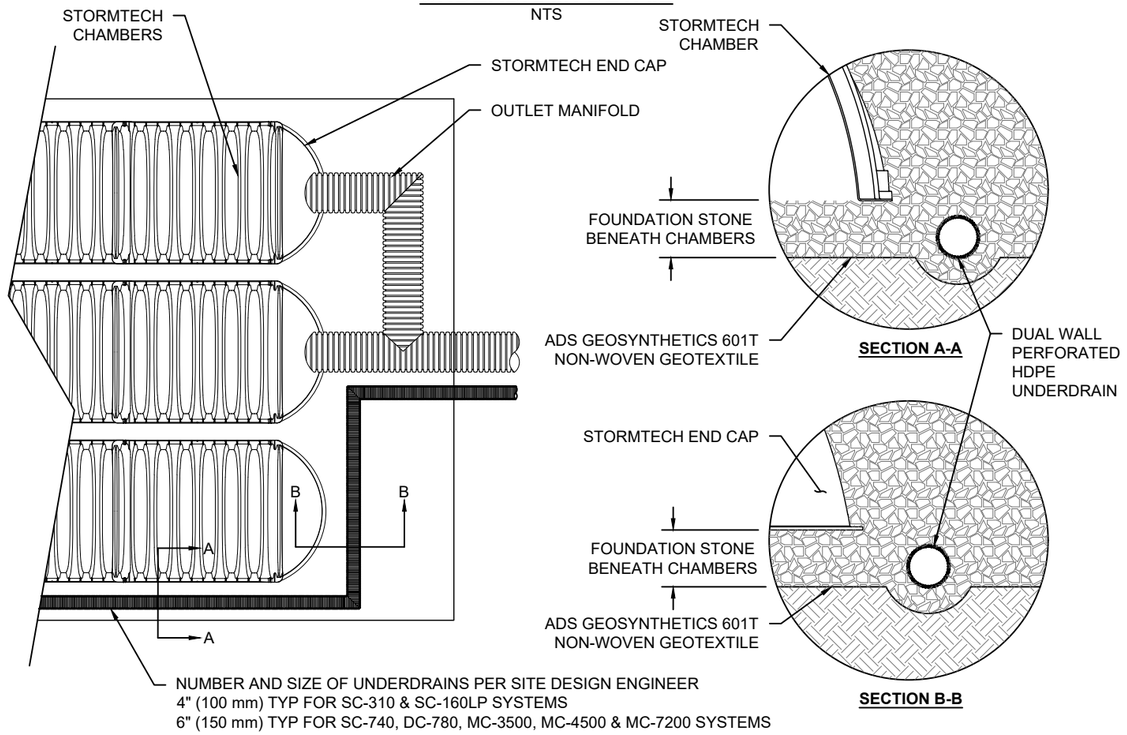
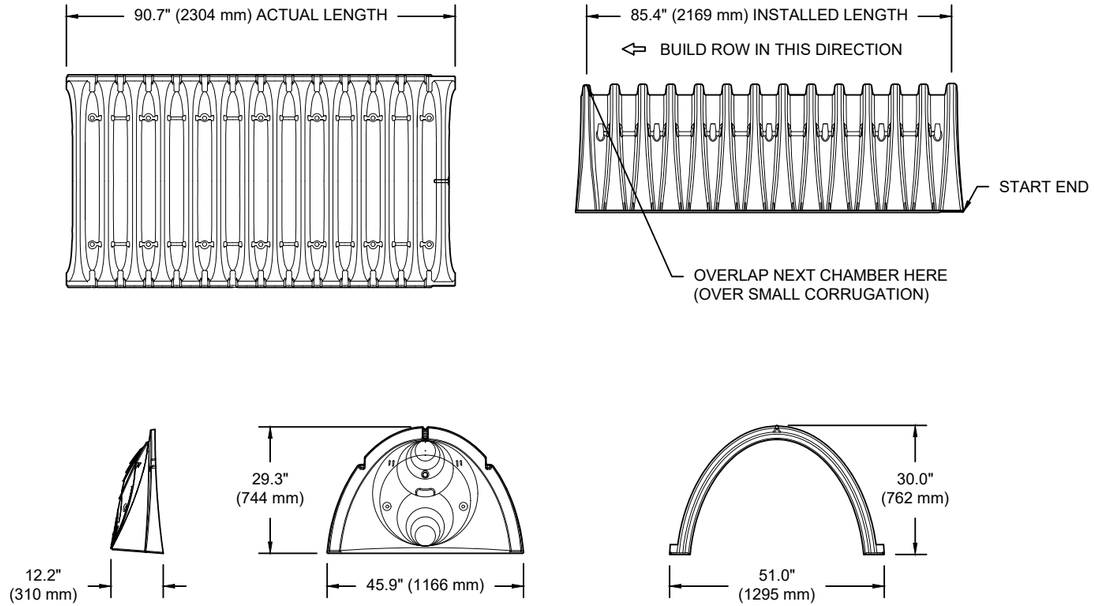


SC-740 TECHNICAL SPECIFICATION

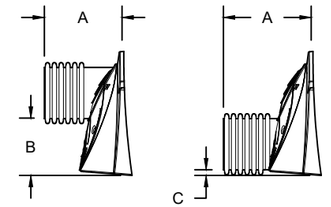
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

BUILDING 300
MADISON, WI
DATE:
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PROJECT #:
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DESCRIPTION	CHK	DRW	DATE

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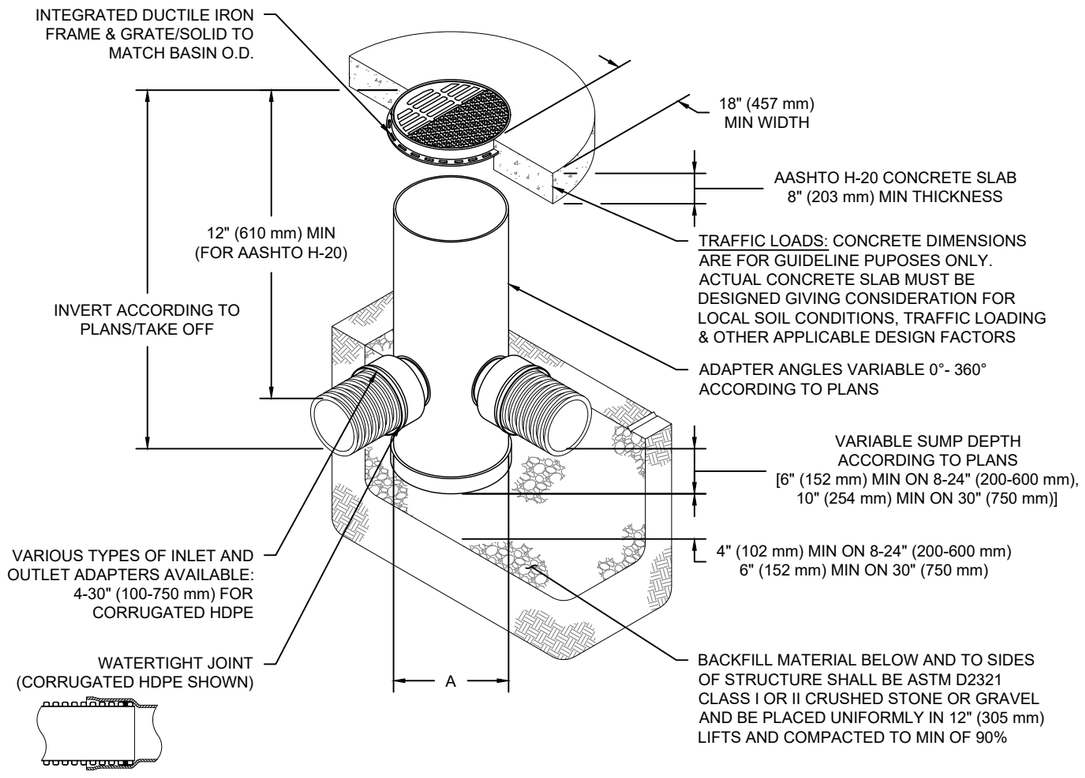
NYLOPLAST DRAIN BASIN

NTS



NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

BUILDING 300
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DATE	DRW	CHK	DESCRIPTION

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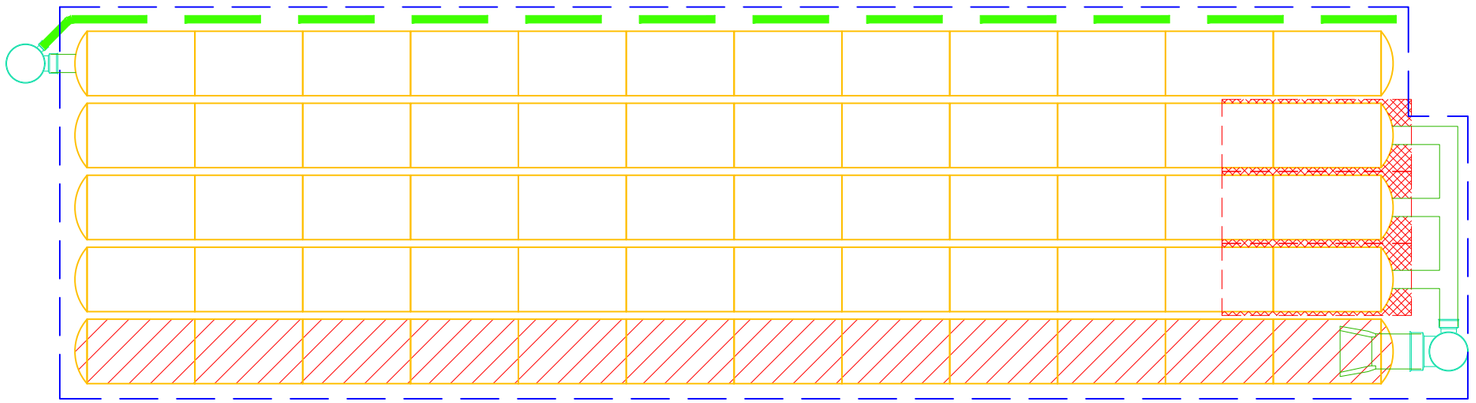


PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

BUILDING 500

MADISON, WI

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

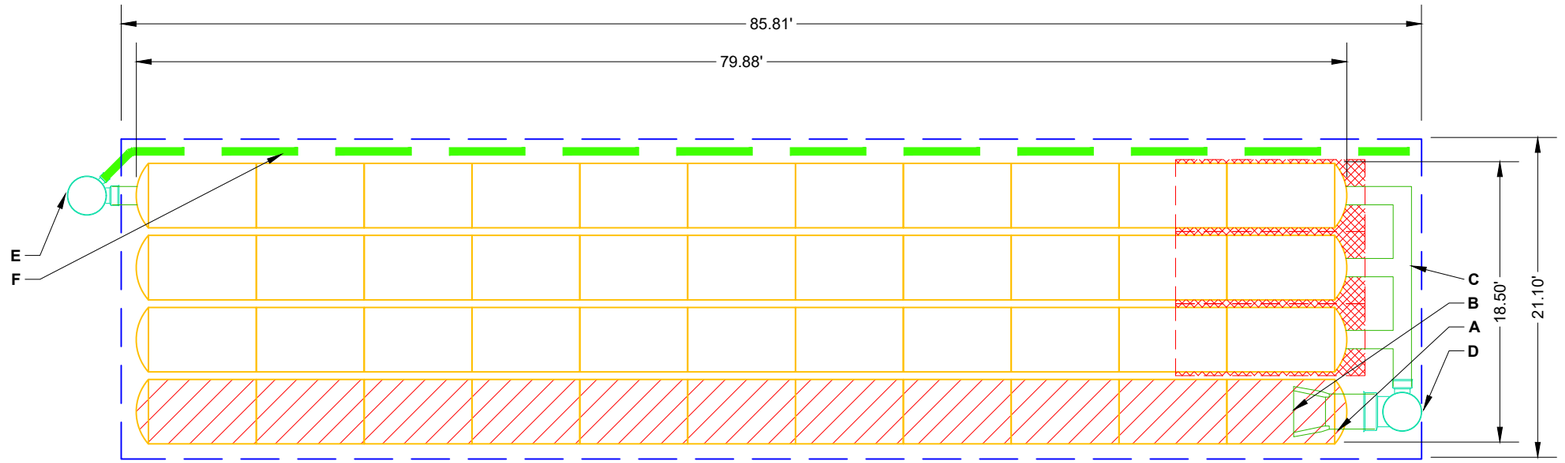
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
44	STORMTECH SC-740 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	903.45
8	STORMTECH SC-740 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	897.45
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	896.95
6	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	896.95
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	896.95
4110	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	896.45
		TOP OF SC-740 CHAMBER:	895.45
		12" x 12" TOP MANIFOLD INVERT:	893.99
		12" BOTTOM CONNECTION INVERT:	893.05
1811	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	892.96
213.8	SYSTEM PERIMETER (ft)	BOTTOM OF SC-740 CHAMBER:	892.95
		UNDERDRAIN INVERT:	892.45
		BOTTOM OF STONE:	892.45

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED EZ END CAP	A	24" BOTTOM PREFABRICATED EZ END CAP, PART#: SC740ECEZ / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	0.10"	
FLAMP	B	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: SC74024RAMP		
MANIFOLD	C	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
NYLOPLAST (INLET W/ ISO PLUS ROW)	D	30" DIAMETER (24.00" SUMP MIN)		5.7 CFS IN
NYLOPLAST (OUTLET)	E	30" DIAMETER (DESIGN BY ENGINEER)		2.0 CFS OUT
UNDERDRAIN	F	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS
(SEE DETAIL)

PLACE MINIMUM 12.50' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

BUILDING 500
MADISON, WI
DATE:
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PROJECT #:

DATE	DRW	CHK	DESCRIPTION

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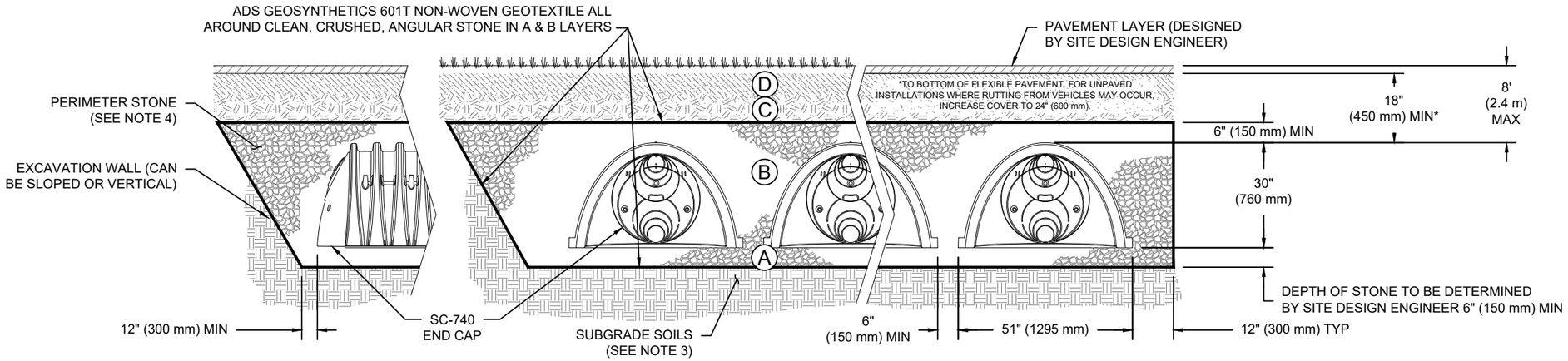
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 10' 20'

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

BUILDING 500
MADISON, WI
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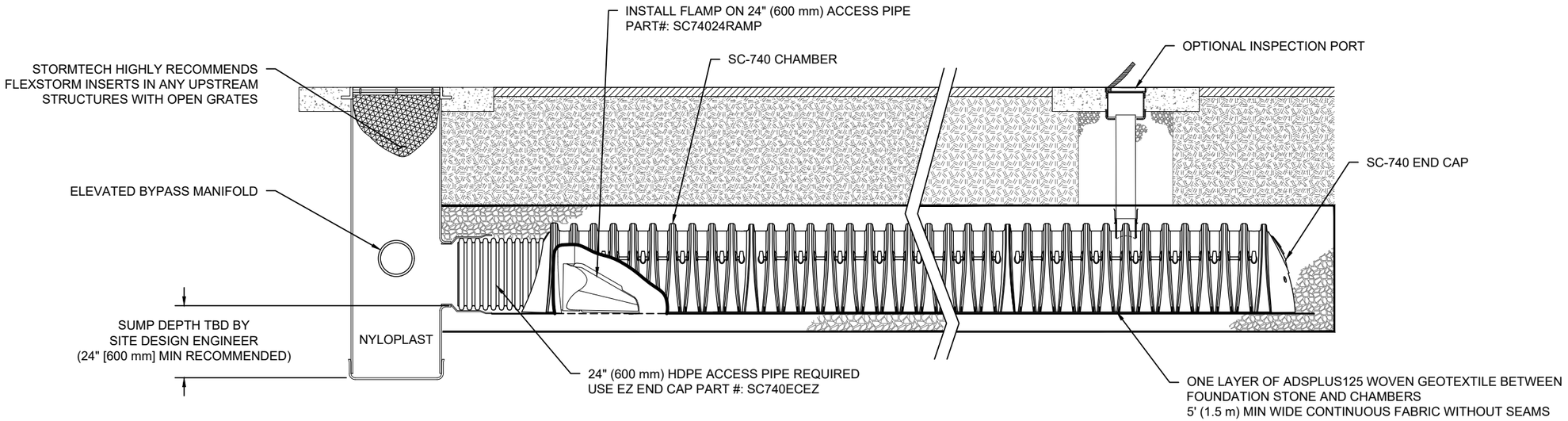

SC-740 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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UNDERDRAIN DETAIL

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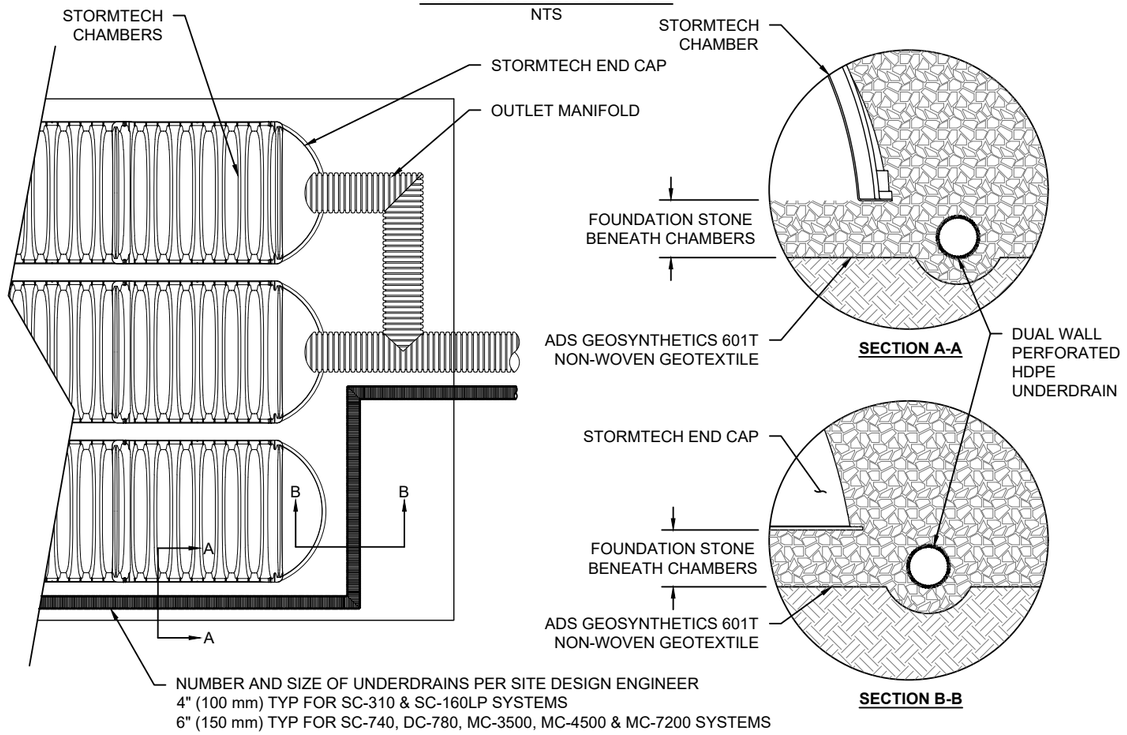

SC-740 TECHNICAL SPECIFICATION

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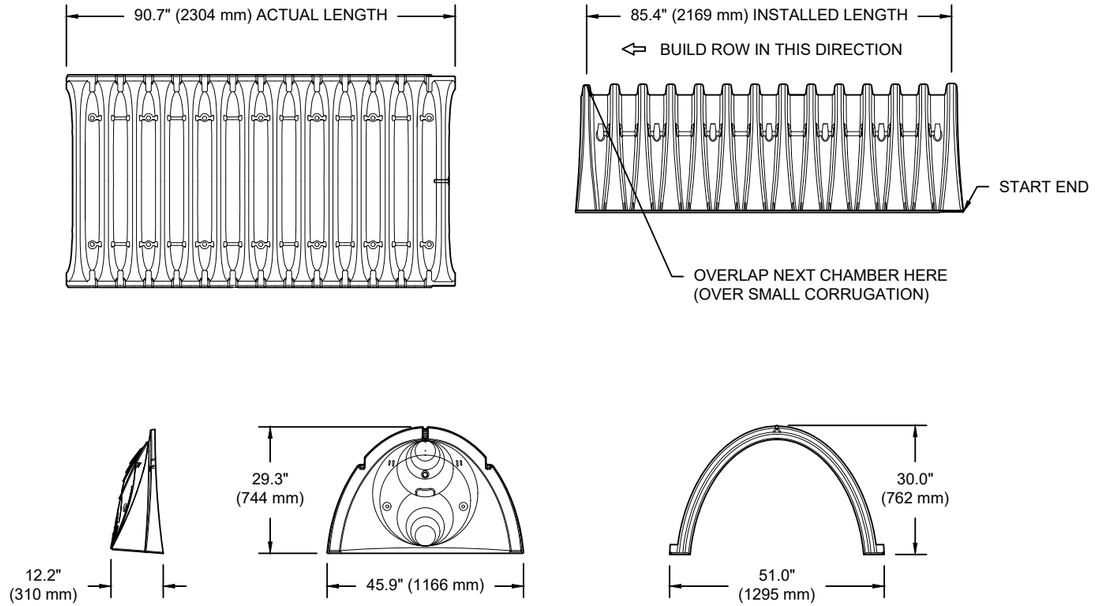
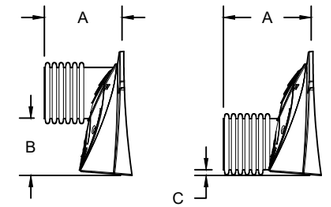


NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

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NYLOPLAST DRAIN BASIN

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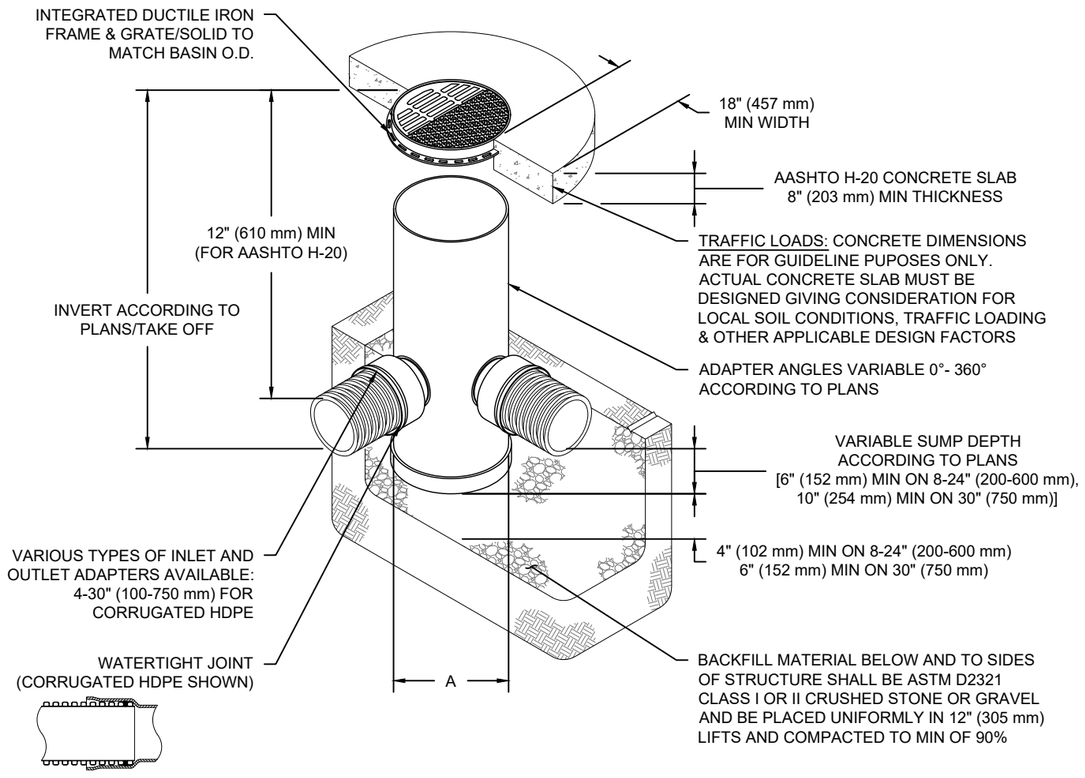

NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

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